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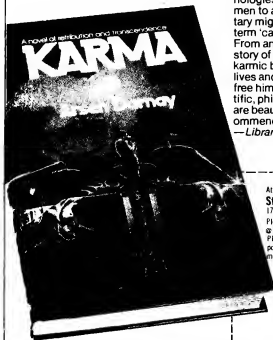
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PAPASTIE



Schaffer

Dann Flesher

The planet had a great transport system—all you had to do was catch a worg. But that wasn't easy, especially when the worgs developed "motor" trouble!

I

THE WORG MOVED slowly, stopping every few seconds to munch on the tender undergrowth. Its diet consisted normally of leafy plants, but here it grazed on better fare, the young shoots of red bamboo.

Clouds above blocked one of the twin moons and soon would cover the other, but the darkness would have no effect on the near-blind creature. Three stubby antennae projecting toward the ground provided all the senses it needed. A keen sense of smell and a bat-like sonar would lead it to the best grazing and guide it around the larger rocks and the giant ponders.

The huge triplets of padded feet crushed yard after yard of normal fare while the mandibles greedily ripped up the more tender shoots. Deep inside the bulbous head, a tiny brain was registering something akin to pleasure, though any true thought on the matter was well be-

yond its capabilities.

Instinct alone guided its motion. Instinct and the driving need for fourteen to eighteen tons of grasses and shrubs each night. Yet, that impressive quantity of food sustained only a low metabolic rate. Indeed, most of the natural activity of the massive beast consisted of eating followed by more eating, followed by a full twenty hours of sleep during the daylight hours.

The worg paused momentarily as it sensed motion to its left. Then it moved on in its previous course. A kilometer or so away was another one, moving out of the ponders and into the clearing. Worgs often met like this in open grazing land. Other than an occasional scuffle over choicer grazing areas, no harm came from the encounters.

Somehow this was different. If the worg's mind had been even a little more discerning, it would have noticed a strangeness about this newcomer. It grazed on in ignorance.

The newcomer approached steadily, moving at a pace of thirty kilometers per hour, well above grazing stride. It also approached in a nearly straight line, passing lush patches of growth on either side that should have drawn its attention.

The center legs were lifting in a skipping motion, barely holding their own with the more agile outer rows. Their normal function, that of supporting most of the creature's massive weight, had to give way to the urgent demands of the driving motive legs. The creature strained and suffered from the shift in stresses, but on it ran, in a frenzy its feeble mind could not comprehend.

The grazing beast sensed danger only a second before the collision. It reacted by starting to turn toward the rushing nemesis, a move which only aided its enemy. With its body curved toward the onrushing creature, its armor plates tended to bind against themselves and its weight shifted to the outer legs.

The rushing worg's head struck low on the side of the other's protective bony plates. One plate cracked ominously, sending echoes off the forest wall. Others bent and buckled, thrusting the nearer legs up and off of their formerly secure footing. Long seconds passed as the surprised creature spun upward, rolling onto its side and then over onto its back.

Looking much like a turtle with too many legs, the worg rocked from side to side, kicking frantically at the silver-rimmed clouds hanging overhead.

The aggressor stopped, its own plates still quivering from the im-

pact. It stopped, and started to graze on the red bamboo shoots.

Over the crunching sound of the grazing mandibles and the thrashing of the downed creature's legs, a third sound emerged . . .

"... five, six, seven, Go! Now!"

Three figures dropped to the ground near the central row of legs some ten meters behind the mandibles. They jumped over the outer foot pads and moved toward the thrashing shadow before them.

"Carlston, are you sure this one is going to stop?"

"They always do. As soon as they get flipped over, they kick up a real fuss for about forty seconds, then they stop. When it stops, I'll have about twenty seconds to get up the side before it starts a turnover twist."

"Fifteen, sixteen, seventeen!"

Two flash beams from holes in the side of the placidly grazing beast lit up the downed creature. The legs kicked wildly in the artificial light. Two of the men dropped to their knees and aimed cable launchers at the edge of the curving plates some twelve meters above them.

"Get closer, Tan! The cable will fall short!"

"But Sarge?!"

"Closer!"

"Twenty-eight, twenty-nine, thirty, he stopped!"

The launchers snapped loudly and the lines flew upward. Tan's hit low, a full two meters below the rim, but the other struck very near the edge of the armor.

Carlston grabbed the second's loop and ran toward the huge curv-

ing wall of carapace. Tan dropped his launcher and jumped to aid Blair with the winch on the second launcher.

"What a lousy shot," Tan murmured as he grasped the line.

"Good enough for a first time. This is my ninth . . . all you need is practice. Hang on!"

Carlston reached the side and jumped upward, planting his spiked boots into the side. He scuffled, slipped only once, and then walked, fly-like, up the plate. Tan and Blair kept the line tight, lifting most of the Sarge's weight up toward the now-still legs.

Six seconds had passed, according to the crewman in the other worg, when he reached the outer row of legs. With most of these creatures he would have had another fourteen seconds to cross to the center legs and establish anchorage before the creature began to move again. But this one? . . . This one seemed quicker than most. Carlston had better move.

Carlston reached the center row. He estimated that he was at the eighteenth or nineteenth leg, about thirty meters from the head. He, too, worried about the quickness of this worg and about the time left to secure himself. Anxiously, he began to set the anchors.

The twist started at sixteen seconds. Carlston missed the fourth anchor, striking the soft underplates and dropping it and the hammer. He lurched back as the worg began his first twist and then pulled himself closer to the anchors. The worg was almost on its side before he had the straps tight enough to hold him firmly.

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Within a minute after the initial impact, there were two worgs grazing on red bamboo shoots, one with a solitary rider strapped beneath, the other, three riders lighter and soon to be empty.

The anchors held. Carlston loosened the straps. By tilting his head back, he could look down and forward at the mandibles.

The moons had reappeared, but here in the shadow of this animated lawn mower, only his small wrist beam allowed him to see. If his guess was correct, he only had to move forward about three or four segments to reach the lower nerve center.

Below him, on the rims of the feet, were the sensor hairs. To fall between the feet, to touch one hair, meant certain death. Probably an instinctive preservation mechanism, the hairs triggered rapid twitching and a stomping reaction. The worg's six-foot-wide foot pads would easily crush Carlston and bury him in one stroke. He wished for the fourth anchor.

The hammer, dangling from its wrist strap, was quickly recovered and he began his move. Checking the forward two anchors, he slowly released the third. The two held.

He moved the anchor forward and drove it home. He locked it in place and moved forward cautiously. Each step in the process moved him forward about half a meter, less as he crossed the plate overlap areas. For half an hour the worg grazed on. For half an hour Carlston eased forward.

There it was. The greenish lateral stripe which indicated the nerve center. The stripe itself was due to

the fluids which flowed from the creature's three huge hearts. The fluids, heavy in chloroplasts from the leafy diet, carried energy to the nerve centers.

With the skill of a sculptor turned surgeon, Carlston chiseled his way through the armor plate and located the nerve center. The center itself was smaller than a baseball but only one small part was of present interest. There at the back, a small thumbnail-sized segment stood out slightly in the light beam.

Carlston reached into the left zippered pocket of his tunic and pulled out one of the small plastic tubes. Breaking the tip, he squeezed the orange-gray paste onto the nodule. Now to wait. Always to wait.

Worgs were handy creatures, predictable and useful. They provided food supply as well as transportation. The muscle tissue, similar to a soft veal, was high in protein. The fatty tissue could be extracted for fuel. Their empty shells made good houses. But their primitive mental and nervous system, coupled with their size, made for waits.

He waited. Slowly the drug was absorbed into the nerve center. Then out through major ganglion. Then finally to the sensitive bases of each hair. With the sensors deadened, the short-circuit pile drivers would not threaten the lives of the other crew members as they boarded. Worg crews tended to tax the huge beast's strength after a few months' use. These changes of transportation now occurred almost routinely.

As he waited, the Sarge did some calculating. Thirty seconds of thrashing, versus thirty-five min-

imum and thirty-nine average. Fifteen or sixteen seconds versus twenty normal on the roll-over.

Normally, the nerves would be "off" in about eight minutes. At six minutes he made the first test. He eased the hammer strap downward toward the hairs in the light of his wrist beam.

The first contact caused only five or six stomps. He wasn't sure, it was hard to count being jarred around like that. But it was nowhere near the two dozen or so he had expected.

An interesting creature, this one. Worthy of more study.

He yelled out at the two other members of the ground crew. "Tan! Blair! Disembark!"

At the signal, the two flashed the all-clear to the crew in the other worg. Soon eight men were busy under their new host, cutting the key man-holes and boring their way into the creature.

If the interior of the worg had been completely solid, its use would have been limited. The muscle tissue for the legs and support lay within the lower five feet of the body. Above that, the fatty storage area consisted of compartmented cells, roughly triangular in shape and three to six feet across. Groups of these cells formed internal segments. Each segment filled only sixty to seventy percent of the surrounding carapace shell. The fatty cells were attached to the upper shell segments and to each other through a network of thick tendon-like fibers.

The maze formed by the fibers and cells was somewhat confusing to the new crew member but

quickly learned and mastered. By cutting a few of the more troublesome fibers and three or four cross passages through the cells themselves, one could easily move through the beast at a running gait. For convenience, a long central passage was usually cut through the length of the fatty cells.

Within an hour the key forward passageway had been cut through and work had begun on the others. Carlston, with permission from Captain Gatis, had avoided the labor crew in favor of some desk work.

He had quickly set up the aft port-a-desk over the man hole. Using a flash beam, he studied the worg's reactions in detail. Periodically he tested the worg's responses to various electrical impulses. The computer in the desk checked his observations against his quickly formed theories and reported back to him.

An hour and two minutes. The computer had predicted an hour and ten. Carlston had predicted one hour and six. An hour and two minutes had passed since the nerves went dead and now they were fully active again. The norm was just shy of two hours.

The initial shock of a full-force stomp brought yells of derision from all over the worg. Although the scolding was aimed at Carlston, each crew member realized fully that the stomp was much too early. Each sensed that this worg was decidedly different than most. Carlston considered a second probe but instead withdrew from the man-hole and secured the recorder. He was soon back to the routine supervision of the work crews.

By five p.s.*, only three hours after they first spotted the new worg, the cross passages were cut, the bunk rooms were roughed-in, and a command room was in operation inside the dome of the worg's head.

"We have about nine hours till sun-up, Sergeant. Dismiss the men for some sleep. We'll cut the long hall in the morning. Set up normal watch cycles. One man to check the controls and the detectors."

"Aye, Sir," Carlston answered. "Sir . . . have you had a chance to check my recording?"

"Yes, briefly. A strange bug, this one?"

"Yes, Sir, a strange bug indeed. We'll have to watch our maneuvers. It responds faster than any I ever rode."

II

Faint sun's rays eased over the horizon, edging the black sky with a blue-green light. The twin moons, spiraling endlessly around each other, had set earlier, leaving the planet with only an occasional star shining through holes in the clouds.

Blair had the last watch. The uneventful hours were spent in detailing the command room, anchoring the control desks and cutting map shelves in the gelatinous walls. Once every ten minutes, he stopped to scan the countryside through the main ports. The small periscope allowed full 360-degree I.R. scanning of the broad meadow with its tall grasses and leafy brush.

*p.s. Post Sunset. A third twelve-hour period established to allow for Cygnus IV's thirty-six hour day.

The night sounds were somewhat muffled by distance and the everpresent crunching of the worg's mandibles. Slowly the night's voices gave way. The first rim of pale light on the horizon drove some into hiding, waking others to replace them. Even though the sun itself would not appear for another three hours, the daylight creatures were beginning to stir.

As the end of his watch approached, Blair paused longer at the ports. Of all the watches, he liked the morning best. High in the ponders he heard the morning songs and watched the first probing flights of the lace-winged birds.

In spite of their oversized wings and fragile frames, they still reminded him of the birds of home. Home. Would they ever get back? The annoying doubts nibbled at his mind. Four years had passed since their arrival . . . Four long years by earth time . . . Six since their departure from earth.

Yet it was only three 'years,' three longer years, by Cygnus IV accounting. Only three cycles of rain, fog and heat. Three 'years' of thirty-six hour days. Cycles which men grew accustomed to slowly, if at all.

He watched as the birds tested the air. As the light slowly increased, they ventured ever farther from the shelter of those impossibly tall trees.

His reverie was interrupted by a sudden silence. The worg stopped eating. In a few moments it resumed. Then it stopped again. It, too, sensed the light. Soon it would stop completely and move toward a watery bed in a nearby bog.

Blair checked the time and began his rounds of the sleeping quarters. Control cables had been run during the night watches. The control desk was ready, but the delicate job of connecting the wires and tubes to the nerve centers was yet to be done. That was Carlston's job.

Sergeant Carlston, who had captured the first live worg two years earlier, was the expert. That first bug was less than thirty meters long and took quite some doing to handle. This one, nearly the size of a football field, would be easier to handle—not because of size but because of the experience of the crew.

As the worg reluctantly moved away from the red bamboo, a more reluctant crew crawled out of their bunks to begin another long day.

Charts and more charts. Maps, some sketchy, some detailed, lay before the Captain. Bit by bit their geographical knowledge of the planet grew. Their daily exploration was slowly adding detail to the orbital photos taken before the *Intrepid's* abortive landing.

But geography was of little value. Little value indeed.

"I think Hatcher was right, Captain." It was Lt. Dixon who spoke as he entered the control room. A metal detector extended from his clenched fist.

"About what, Lieutenant?"

"About this planet. I think it's all rock. Lots of sodium and lithium and calcium but no heavy metals. At least we can't find any. Doc Hatcher said we wouldn't."



"Hatcher? But he was killed during the crash."

"Yes, Sir." Dixon wired the detector to the desk as he answered.

"Well, how could he know what was here before we landed?"

"He worked in astro-physics. During the pre-landing orbits, he checked out the physical data pretty well. This rock is larger than earth with only two-thirds the gravity. It's too light to have much in the way of metals. . . . Look at the read-outs!"

The narrow tape coming from the desk computer showed no evidence of substantial amounts of metal ores heavier than aluminum. To the trained eye the various tracings on the chart indicated quickly the major ores present and, up to one hundred meters down, their location. The compass line gave data on distance and direction traveled and elevation from a reference point, namely the Settlement.

Good data to fill out the maps. Discouraging data for the geological reports.

"If there is any iron or nickel around, Sir, it must be way down there." A tone of resignation had entered the Lieutenant's voice.

"You may be right, Lieutenant. Do you think it would help to probe deeper? The Electronics Group might be able to increase the detector's range?"

"Personally, Sir?" he ventured.

"No, Sir, I don't."

"But there have to be iron deposits." It was Blair who broke in, suddenly.

"Yes?" The Captain's voice seemed eager for some positive turn in the conversation.

Blair turned from the controls to continue. "The life forms, Captain." The answer made little sense.

"Well? What about them?"

"I'm no expert but they must be almost as high in metallics as Earth's." He could see from the faces of the other two men that he had to continue but he wasn't so sure he wanted to. "Well . . . take blood for example . . . doesn't it require iron . . . to absorb the oxygen? The animals we've found, the warm-blooded ones, all have red blood."

"Traces," interjected Lt. Dixon. "That's all it takes for red blood, and that's all we can find. Maybe we should be grateful for small blessings; at least there's enough iron in the local meat to stretch our rations. But it isn't going to help us get back to Earth—not unless we can figure a way to, say, refine Toppers' blood. . . ."

"Now that's not a bad idea!" The Captain was glad for any bit of humor to break the building mood.

"Put it in the log, Lieutenant."

"Hah! Yes, Sir; I'll do that."

"Seriously, Blair, why don't you check with the biology people and see what they can find out about how the animals get their iron. They must be able to come up with something."

"Maybe, but I don't know what. They've tested all the surface vegetation. It has traces of iron, of course, and the traces get more concentrated as you move up the food chain. Nothing surprising there; all it proves is that you'd have to collect grass clippings by the shipload to get enough iron for a few nuts and bolts. Assuming we

had the energy to do that kind of 'refining' in the first place."

"Weren't the Toppers supposed to have higher iron levels than any of the plains animals? We still don't know much about any additional sources they might have, do we?"

"The Toppers aren't exactly cooperative, Sir. We've tried to steer clear of them since they started making sporadic attacks. We've got too much to do without fighting Toppers if we can avoid it."

"Well, we can't afford to overlook any possibilities at this stage."

"Yes, Sir, I'll check in with Biology on it."

The Captain's attention returned to the charts. Sector by sector they had searched for the badly needed metals. His crew and six others had worked at ever-increasing distances from the Settlement.

The first prospecting had been done in the "most likely" rugged areas to the north. Now the efforts were systematically covering every sector in an ever increasing spiral. For over a year the crews had sought workable ores—ores for metals to build the heavy machinery and the parts to repair the *Intrepid*.

As the explorations had gone from hundreds of square miles of likely areas to thousands of square miles in all directions, hopes had waned. Irritations grew and Command had wisely changed the official policy for crews from "geology" to "geography." And the emphasis in the Settlement was now on improving living standards in the community.

But every worg crew still carried a geology expert like Dixon.

"Take us southeast for another forty kilometers, Blair." The Captain indicated a map coordinate to the attentive crewman. "Then let's head back to base for a rest and new orders."

"Yes, Sir! Should I pass the word around, Sir?"

"Go ahead. The crew could use a lift."

III

The raid had started quietly. At sunrise the first group of Toppers stopped at the ridge overlooking the Settlement. The sun to their backs, they paused momentarily to look down on the roughly symmetrical rows of rounded huts.

These shells of worgs, taken mostly for food and fuel, now served as homes, offices, laboratories, and even a chapel. Not far from the edge of the cluster of dead but occupied shelters stood the *Intrepid*. Dwarfing even the largest worg shell, the gleaming beauty of the intricate ship was marred only by the damage to the aft hull and fins.

The original damage had been more severe. Time and the talents of the surviving crew members, some 220 in all, had repaired most of the craft.

The repairs had required the scavenging of metals from the aft section. The ship now stood waiting for the prospecting crews to find the needed ores to rebuild its stress-bearing beams and skin.

Near the ship, an odd assortment of worg shells housed the machine shop, improvised smelter and

ceramic forges. All waited for the ores to be found.

From the ridge, little activity could be seen. Little existed. A few Toppers moved forward. Their lack of organization was made up for by a determination based on a growing hatred of the scene before them.

As the first group moved, others followed. Soon, even the most timid sub-tribes were advancing—first, at a slow walk, then at a trot and, finally, at a dead run.

The long arms and prehensile toes hinted at their normal tree-top existence but the three stubby legs were surprisingly agile on the ground. They moved in a skipping rhythm with the hindmost leg launching the other two forward in extraordinary spinning strides.

The tri-pedal symmetry, so common on Cygnus IV, had given them a defensive mechanism to be envied. For all practical purposes, they had no front . . . and no back. You could not get behind a Topper. They effectively had 360-degree vision with three beady eyes placed high on the head. Each eye was centered between two of the three spindly arms.

The largest weighed no more than fifty pounds, but their gaunt frames made them seem bigger. As they gained speed, their hands wielding clubs or stones, they seemed much bigger.

The sentry's alarm came late as the figures took shape against the blazing sunrise. His cry was more of startled fear than prearranged signal. He was the first man to fall. But only after he had downed several Toppers with his automatic rifle.

The sentry's alarm, followed by the rifle fire, had the desired effect. Although some of the defenders emerged from their quarters only partly dressed, all had weapons ready.

The Toppers' assault was at a frenzy. Like creatures gone berserk, they seemed to strike at everything in sight except their own kind. They numbered well over two thousand as they entered the settlement.

Rifles and sidearms barked death at the invaders but, senselessly, they continued to advance directly into the fire. By sheer numbers they gained some ground, but their numbers fell quickly.

Within half an hour it was over. The Toppers had scattered back to the woods, leaving some six hundred of their kind dead or dying among the domed shelters.

Only five men were dead. Several others were badly beaten but only a few were incapacitated. The physical damage to the structures and equipment in the path of the assault was high. In the frenzied attack, entire segments of the work shells were smashed in or ripped away.

Colonel Reading winced as the Doctor Hyotte worked on his battered left arm. "Matt, I want a complete damage report. Has a perimeter been established?"

"Yes, Sir," Major Mattson answered. "What should we do with the wounded Toppers?"

"Ouch!" the Colonel winced. "Watch what you're doing, Doc! What's your opinion? Do you think we should hold them or just kill them off?"

"We don't have enough medical

supplies to treat them all, but I'd like to keep several of the healthier ones under observation for a while." The doctor finished his work on the Colonel's arm. "There. That should hold your arm together for awhile. What do you think, Colonel?"

"About the arm or the Toppers?" The Colonel looked warily at the bandages.

"The Toppers," he smiled.

"Okay, keep the ones you want. Matt, have the others shot."

"Yes, Sir. Sir, do you think they'll be back?"

"Well, according to the reports, they're beginning to form small groups at the edge of the forest again. Correct?"

"Yes, Sir."

"Yes, Matt, I think they'll be back. Now that we're alert, they shouldn't be able to get close enough to do any damage. It'll be suicide, but they'll probably attack again."

"Why, Colonel? Why did they attack us in force? We've had trouble with isolated crews being hit before, but there's never been more than a few dozen of them. We killed more Toppers today than I've seen since we've been here."

"That, Major, is the prime question. I wish I knew the answer."

"It may help if I can study them." The doctor continued as he repacked his kit. "I'll need a cage big enough to hold them."

"Will wood and mylacord hold them?"

"They're strong, but I think it will."

The Major anticipated the Colonel's order. "Yes, Sir. We'll build

a cage against the end of the machine shop, next to medical."

As he spoke, scattered rifle fire could be heard at the edge of the settlement. The second wave had begun.

IV

The worg's pace now exceeded eighty kilometers per hour. Blair worked the controls with obvious excitement. Sargeant Carlston and Captain Gatis studied the desk. Input data, some from the crew's officers and some picked up directly from the worg's nerve centers, became output data.

"The entire metabolism is accelerating." The Sergeant indicated the charts as he spoke. "Most worgs can't do four hundred kilometers a day. Yesterday we covered six hundred before sunset. Today we could cover twice that."

"Yes, but we'll be at the Settlement in an hour."

"Yeah. I almost wish we weren't. I'd like to ride this thing out and see how active it becomes."

"Blair, how does it handle?"

"Terrific, Captain. Control response is good, but I could use a larger port to see out of."

"What about stopping her? Do the 'brakes' work as well as the gas?"

"I think so. Should I put her through some fancy maneuvers?"

"You'd better alert the crew first, Captain," Carlston interjected.

"Okay. Let's see what she can do. ATTENTION, ALL HANDS

...

With the crew alerted over the

intercom, Blair proceeded to put the huge worg through delicate high-speed turns. Stopping response was sudden—so sudden that some of the charts and shelved equipment tumbled to the floor. One turn was so tight that the worg's plates scraped together, nearly locking. Half of the legs on the inside row lifted clear of the ground. Only Blair's quick action on the nerve impulse controls prevented a roll-over.

As Blair returned to the plotted course, the Captain smiled. "Carlston, you had better get Blair that larger port. If he's going to drive like that, he needs it."

"Yes, Sir!"

"And, Carlston, maybe you should plan on staying with this one when we get back to base. It needs a lot more study. If we can figure out how to speed them all up like this, we can double or triple our prospecting efforts."

"Yes, Sir. I'm probably going to need another desk. Do you think . . ."

His words ended abruptly as a sharp cry came from Blair. "Toppers! Captain! Two o'clock!"

As the worg rounded the knoll, the group of Toppers could be seen near a clump of brush almost a kilometer ahead.

"Captain, there must be a hundred of them!"

"Yes, and they're pretty far from home. There's no tall timber for some distance."

The Toppers were moving at a trot across the rolling terrain. Apparently, their own hurried pace kept them from noticing the worg's approach, until the gap closed to less than half a kilometer.

"They've seen us, Captain," Blair called out.

"Look at them scatter."

The Toppers had seen them. The presence of the huge, rumbling creature normally brought little concern to the Toppers, but the normal worg was asleep during full sunlight hours, usually half buried in mud or shallow swamp land.

This was daylight. This worg was awake and moving. It had taken a few confused moments for the Toppers to realize the worg's speed. In those occasional morning encounters between grazing worgs and Toppers, the Toppers could easily outrun the lumbering worg. Groups of twenty or so would occasionally attack and pester one of the huge bugs. But this one appeared menacing indeed.

Some stumbled. A few fell, as the tribe broke up in confusion. Some stopped to help their fallen companions. Several paused to hurl stones at the head of their attacker.

Blair turned the worg, skillfully following the heaviest concentration of Toppers. Twenty or more were killed on the first pass.

"Captain, I've never seen such a large group." Blair brought the worg into a sweeping turn, selecting his next targets.

"Neither have I . . . Carlston! Look at their trail!" He pointed at the swath of broken grass, which from the end looked like a long ragged runway. The path closely paralleled the clearer three-rutted trail left by their own passage.

"Looks like they were headed the same way we were." The Sergeant's face showed traces of worry.

"Yes, the Settlement! I don't like the looks of this. Blair, turn her around. Head for home at top speed."

"But, Captain, I can get them all."

"Do it, Blair!" The Captain's tone had changed.

* * *

The fifth wave of Toppers started toward the Settlement. They no longer approached directly. Using the low brush as cover, they danced and spun across the fields toward the shelters.

They had lost more comrades than the whole of the first wave. Over three thousand lay strewn across the fields. But their numbers had increased as tribe after tribe joined the attack. With eight or nine thousand, they now attacked on a broad front.

The Settlement's defense perimeter had widened to cover 180 degrees. Barricades of all descriptions had been thrown up between the outer shells to provide an almost solid wall.

The Major's concern was apparent. "Colonel, we've lost eight men, with maybe fifteen seriously injured. If they keep growing in numbers like this, they're eventually going to get through."

"I know. Have we got any help from engineering yet? We need more effective firepower."

"They're working on some explosives but I don't think it'll help us soon enough. . . . Here they come again."

"Well, if we can hold them off this time, they should have an hour

or two before the next attack. That is, if the pattern holds. Will that be enough time to finish?" The Colonel drew his side arm and waited.

"It had better be. Our reports show that new tribes are joining them every few minutes. They could double in numbers in the next three hours."

The first shots quickly turned into hundreds, as the Toppers came into range.

* * *

The battle was audible just minutes before the Settlement came into view. Blair stopped the worg in the tall brush at the edge of the clearing and waited for orders.

Captain Gatis watched a moment, then gave quick instructions. The worg responded to Blair's skilled hands and moved around the low rolling hills toward the huge space craft.

"Keep to the low ground until you get close, Blair. We'll be hidden by the *Intrepid* as we move in. They're not attacking that side yet."

"Surprise will be the key element in our favor," Carlston said. "If those three-eyed baboons see us coming, they'll try to stop us. And from the numbers I've seen, they probably could if they worked at it."

"When you reach the *Intrepid*, Blair, turn her out and circle the camp. Run right through the middle of them. We have to get as many as possible on that first run. Carlston, have the men fire from the side ports."

By the time the worg reached the

ship, the Toppers were within yards of the defenses. The huge ship provided enough cover to allow an accelerated approach. As they broke from cover, the worg was nearing 100 kilometers per hour. The massive creature's appearance had the desired effect. The Toppers nearest the barricades stopped their advance and turned to consider the new threat. The momentary delay between the worg's appearance and its reaching the first groups of attackers served to concentrate them in its path.

Surprise was replaced by confusion. Confusion by panic . . . And in the wake of panic came death.

As Blair guided the worg around the Settlement, the shock wave of panic preceded them. Behind them, a scarlet strip of ground bore record of their passing.

With the circle two-thirds complete, Blair turned the worg to make another run.

"Captain. look!" The worg slowed abruptly as Blair viewed the terrain before them. "They're gone!"

Across the rolling countryside, the Toppers could be seen fleeing. The near ground was littered with clubs and stones dropped in their flight.

"Captain?" Blair repeated.

"I don't get it either, Blair. What do you think, Carlston?"

"I don't know, Sir. We killed a good number of them, two or three thousand, I'd say. But I've never seen them act that scared." The Sergeant turned from the port to face the other two. "That group we hit earlier put up more of a fight than this. It doesn't make sense."

"I know. As much as I hate Toppers, I've got to give them credit for one thing. They're always ready for a fight. I agree, it doesn't make sense. Blair, take a wide run around, just to be sure they're all leaving. Then drop us off near the Colonel's office."

V

"What did the computer report tell you, Major?"

Major Mattson, with a file of printouts in his hand, had just entered the Colonel's office. He glanced quickly around, smiling and nodding at the small assembly of officers.

"Gentlemen." He greeted them, then turned to the Colonel's desk. "Not much, Sir. Here's the print-out."

"Did we get all the reports' input? Sentries, Worg Captains, every-thing?"

"Yes, Sir. But the computer reaches no definite conclusions about the attacks. There is some indication that the Toppers have been spending more time out of the trees and that they have been forming in large groups—councils, you might say—for a few weeks now. The size of the groups seems to be on the increase."

The Colonel's face was grave. He paused momentarily before asking the next question but it was asked for him before he could speak.

"Can we expect another attack?" It was Captain Snell who leaned forward and put the thoughts to words.

"We don't know," the Major answered. "The ship's computer notes

all sorts of behavior changes in the Toppers but the attacks seemed unprovoked and without reason. The whole affair makes little sense. Here, Colonel, look at this." Major Mattson pointed at one of the printout sheets.

"Yes, I know, we lost twenty men. So?"

"Sir, we should have lost more than forty!"

"What?"

"See the projections here and here? They indicate that we should have lost forty men during the first three attacks. By the fourth they should have overrun us."

"Based on what?"

"Based on the number of Toppers, our defenses and their accuracy at rock throwing."

"They have that," Captain Gatis interjected. "I've seen those three-eyed monkeys knock birds down at fifty meters or more, apparently just for sport."

"And here's another point, Sir," the Major drew the attention again to the file. "The amount of damage to the shelters was exceptionally high."

"Maybe the computer hasn't drawn a conclusion yet, Major, but I get the impression that you have. Let's have it." The Colonel sat back in his chair, as he waited for the reply.

"Well, I have half a conclusion. The reason for the low casualties, I think, is that they weren't after us." The Major's words were apologetic in tone.

"Then what were they after?"

"They seemed bent on destroying"—he stumbled on the words—"the Settlement, Sir. I

think they wanted to bust up the shelters. But I can't figure why."

"And how is Doc Hyotte coming? Any word from his work with the group we penned up?"

"Well," the Major began slowly, "some. And it doesn't make sense, either. He says they're acting strange. Jumpy and almost . . . well, he used the word 'terrified.'"

"Terrified? Is it their wounds? Perhaps the drugs we've used?"

"No, Sir, he said he's checked all that. And . . . guess what seems to scare them silly?"

"Major! This is not a guessing game!"

"Sorry, Sir. It's just so odd . . . It's worgs, Sir. When Captain Gatis came back from prospecting, he scattered the group attacking us. Then later, when he came into the camp, he passed the cage we set up for Doc Hyotte. We thought the Toppers were going to tear it down to get away."

"How many were in the cage?" Captain Snell asked.

"Eighteen, Captain."

"Eighteen? I've seen groups of ten attack a worg."

"Yes, Captain, so have I. As I said, they're acting strangely."

"Well, gentlemen," the Colonel eased his bandaged arm onto the desk, "I don't think we've heard the last of this yet. Based on what we have up to now, we'd better keep the worgs out on patrol. Keep an eye on the Toppers and perhaps capitalize on this newborn fear they have of the worgs. Report every few hours to the ship-board computer officer. Report at once if you find anything strange or any answers to our questions. Dismissed."

Sergeant Carlston made his way slowly down the outer passageway. Three times he bumped into the larger fibrils as his eyes concentrated on the data before him. Finally, he reached his quarters (an eight-by-ten-foot cubicle cut from the waxy cells of the worg's interior) and dropped onto the bunk. The bunk was carved into the very walls of the cubicle. The gelatinous cell material yielded slightly to his weight as he settled down.

Carlston was now alone on the worg. The Toppers' retreat had been permanent. Not only had they not renewed the attack but all reports indicated that they had withdrawn completely into the forest, hiding in apparent terror among the tops of the ponders. The I.R. Scanners found nothing in the area.

Back in the Settlement, the Doctor worked at making sense of the Toppers' dramatic psychological change. The worg crews had been given time off, but the worgs themselves, with only one or two experienced men aboard, were left to patrol the edges of the wood.

Carlston had used the solitude to gather more data on this bug, this strange bug. As dusk came, he set automatic controls to keep the worg in a slow, steady grazing path around the Settlement. The I.R. Scanner alarm was set in case conditions changed but he didn't expect them to tonight.

Now, as he lay on the bunk, a peaceful weariness built from the trying hours of the long day crept over him. The file slipped slowly to the floor as sleep came.

Hours passed, how many he did not know. He awakened fitfully, as from a nightmare, fighting imaginary demons who spun nets to trap him in his dreams. As his arm reached out, a pang of terror struck deeply within his sleep-dimmed mind.

While the demons were of the dream, the nets were not. All around him he could feel and see the strands. The entire cubicle was filled with an eerie glow, as the light from the wall hung beam struck and reflected from ten thousand tiny fibers. The walls, formerly waxen and sullen, now seemed alive. Slender tentacles reached out across space to join others. The cubicle and passageway beyond were filling with the web.

Darkness came to the room as the beam fell from the moving wall and rolled like a snowball into a sphere of white fiber.

Carlston fought to free himself from the bunk which held him fast. With his free hand, he was finally able to reach his knife. With chopping motions, he freed the other, then his feet.

Even in the dark, he could sense the motion about him. The cell was mending its wound, tying itself together, knitting new fabric to replace the old.

Long minutes passed as Carlston hacked away with the blade. Finally, he had room to stand, to stop for a moment, to gather his wits. Frantically, his mind searched the huge worg. Where was a wrist beam? Where were the cutting tools? What was happening?

The wall beam! If he could reach it, he would at least have light.

As he cut his way slowly through the fibers which surrounded him, bits of information filtered into his brain. The worg was silent. Deadly silent. The usual crunching of the grazing mandibles was gone. In its place was, not an audible sound, but the sensation of a slow, pulsing, throbbing motion.

The floor beneath him, the tough inner skin of the leg muscles, was no longer flat. It bulged and contorted and curved strangely.

A glow. A few feet ahead, he could see a faint glow. The wall beam! Wrapped in a tangled mass of the web and wedged between two twists of the floor, it glowed dimly through its new casing.

In a few minutes, he had freed it. Now he could see. But what he saw brought no comfort. He was in a cave, a cave of his own making, perhaps six feet in length and large enough to crouch in.

He tested the fibrous wall around him. "Like the inside of a ball of cotton," he thought. It yielded to the pressure of his hand, only to spring back into place when released. It cut fairly easily with the small knife but progress through it would be slow.

A plan formed. Mentally, he had located the larger tools, the tools he would need to get out of this bug. "A strange bug indeed," the words gnawed at his mind.

As his hands tore and cut through the web-filled cubicle, he plotted the shortest route to the tool chest. It would take hours!

The corner of the doorway brought a sense of relief. The

passageway seemed less dense than his cubicle and further growth from the walls had slowed. The doorway provided a reference point. He cut his way out into the aisle.

His relief was only temporary, however, as a new sensation reached him. The floor beneath him tremored slightly, then hardened.

The convulsion came suddenly, tossing Carlston into the fluffy web above him. He was thrown about violently in his cottony coffin. Only the softness of his cage prevented severe injury.

It lasted only seconds; then, as quickly as it began, it stopped. Carlston lay on his back. The lantern had broken free from his grip. Twice, maybe three times, in the *mélée* it had struck him about the head. Now it lay on the cottony surface near his leg.

As he rolled over and reached for it, the beam played on the floor which now rose like a wall beside him.

Beside him? The worg had rolled over! The floor was now a curving wall and the spongy, cottony wall of the passageway lay beneath him.

* * *

Dawn came in its usual slow pace. The worgs, with their skeleton crews, returned to the settlement. All but one.

Hours later, the beasts were fully manned and a search pattern was under way.

For hours the search went on. Once during the day a crew passed within several yards of a swampy marsh. A green, cottony, moss-like growth covered part of one shore.

Beneath it in the water and mud, the huge worg lay curled into a giant ball. And within the worg, one solitary, lonely man cut desperately away at his prison.

VII

Carlston reached the tool case at dusk. Three times during the long day, he had slept for short periods, collapsing from near exhaustion. Several times, he cut thin slivers of muscle from the floor beside him, to chew on as he worked. Even raw, the tissue tasted good and provided needed energy.

With the larger tools, he proceeded with relative ease toward the control room. With them, he could stand and cut his way through the web.

For many hours there had been no motion, no sound, nothing signaling that any life was left in the giant beast. If he could reach the control desk and check the records, he would at least have some evidence of where he was and how to return to the settlement. And he should be able to get out through one of the enlarged ports, or cut a new one if need be.

As he neared the control room, he could hear water trickling slowly through the ports. Only then did he realize that the worg was under water. The mesh of webbing inside and outside the ports had sealed them almost completely.

The webbing seemed to fall away more easily now, as Carlston entered the control room. He worked his way across the room toward the desk. It extended awkwardly from the convoluted floor.

Carlston cut and tore the webbing away from the desk. It felt wet in his hands as he pulled it from the cabinet. "Moisture from the ports," he thought, then dismissed the error as he stared at the mass of webbing in his hand. It was melting!

All around him the webbing withdrew. Flowing slowly toward the wall of muscle, the fibrous mass was alive again!

He watched in stunned fascination as the room emptied itself. Frustration near to anger flooded through him as he saw the central passageway behind him re-open. The narrow slit cut so painfully from the web, now opened to the former walls. Then the walls themselves began to flow toward the fibrous floor.

The next several minutes brought a new series of convulsions. With what was left of his sapped energy, Carlston clung to the desk as the worg began to move.

The water had stopped flowing.

The floor was again beneath his feet.

The worg was out of the water and upright.

The ports were nearly clear. Faint moonlight filtered through the remaining fibers.

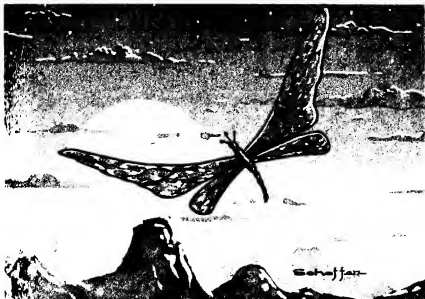
A strange pulsing vibration born of massive energy permeated Carlston and everything around him.

Then he felt a sensation known only to those few privileged enough to free themselves from Earth's friendly grasp. A sensation which he had not felt for some four years.

Freefall!

He was airborne!

Metamorphosis! That was the



missing factor. This beast of burden, this creature of ever predictable habit which he thought he had grown to understand over the past years, had a different side to it.

The passion of new knowledge replaced the terror of the moments before and Carlston fought his way toward the port. The moving muscles beneath him tripped and tossed him as he stumbled to the opening.

Below him, the moonlit marsh floated slowly away. A circle of discarded plates could be seen at its edge, slowly sinking into the marsh. Above him were the stars and in the distance to the left, he could see the lights of the Settlement.

"How?" he wondered aloud. "How can this thing possibly fly?"

With the security of the hard carapace restoring his confidence, he thrust himself partly through the

port. Twisting to get a better view, he saw hundreds of gauzy, glistening wings reflecting the moonlight.

The body was now long and slender, less than a tenth of its original volume. With the outer shells cast off, each segment sported three pairs of huge wings which moved with amazing speed and grace.

The former slab of muscle which had moved those gigantic feet was now swollen with the absorbed energy of the fatty cells.

Like a dragonfly of enormous and grotesque proportions, the worg flitted toward the clouds.

Carlston watched . . . fascinated as it rose higher. Soon even the enormous ponders were several hundred feet below. The worg moved toward the edge of the woods, closing quickly on the tree tops.

Branches brushed close to the port as the worg hovered momentarily. Carlston ducked back inside, closely avoiding being knocked from the port by a six-inch 'twig' of the massive tree.

As the worg rose again, Carlston could see the gaping hole in the tree top left by a moment's 'browsing.' It was nighttime and the worg had resumed his feeding.

Carlston watched as the worg stopped again and again to tease its voracious appetite. He moved to the left port to get another view. Off in the distance, he could see the lights of the Settlement.

Fully a half hour passed as Carlston watched in helpless fascination the scene which unfolded before him. Behind and beneath and around him was this "strange bug" which now held him captive. Out of the ports, he could see the massive woods and the clearing, hundreds of meters below. Above, the twin moons and stars. Off in the distance to his left, the glow of the Settlement.

Off to the left? Always to the left?!

The worg was circling the clearing! Circling in the same pattern as it had grazed the ground far below, the night before!

The controls! They were still working! The muscles which moved the feet and the nerves which controlled those muscles must be the same as those which now moved those huge, filmy wings.

Instinct moved the worg to feed. The nerve controls of the computer could still control, no, they *were* still controlling its direction.

Carlston lunged for the console.

In elation, he gazed at the controls and studied the readouts. Balance was difficult. As the worg stopped to feed, then rose again, Carlston tore off his shirt and tied it to his belt. Then to the console.

"Now," he said, grasping the main panel. "How do we fly this thing?"

VIII

When the worg landed at the Settlement, it was almost dawn. Coming in high and then straight down, almost like a helicopter, Carlston had been able to avoid the sentries and possible armed resistance. The expected reaction came, but he had time to make his own presence known before the community moved to resist this new "invasion."

Twice during the night he had had to make new nerve connections. With the new connections, he had achieved full third-dimensional control, so important to the ultimate handling of the creature.

* * *

Wearily, he finished explaining the controls to Blair.

"It only takes three or four days," he mumbled.

"What?" Blair asked.

"The metamorphosis," Carlston explained groggily. "Three or four days for the complete change."

"Oh. . . yeah!" Blair answered, half as a question.

"C'mon, Blair, the others! You'll have to make the changes now. They could change any day."

"The other worgs!" The impact of Carlston's reasoning broke

through to Blair. "Of course, the others. If this one goes through these changes, they all must."

"Corporal Blair," Captain Gatis broke into the control room. "The Colonel just told me that three worg crews have reported metabolic changes in their worgs. Do you suppose they're all going to change? Into . . . into this?"

"What do you think, Sergeant?" Smiling, Blair turned toward Carlston.

Sergeant Carlston leaned heavily against the port, his face illuminated by the rising sun.

He didn't answer.

He was asleep.

* * *

Within two weeks, eight captive worgs had gone through the metamorphosis. The crews had adapted quickly and since the flying worg could hold only four crewmen comfortably, they had captured several new ones for a doubled force.

"When will the detectors be ready, Major?" The Colonel made notes as each officer present reported his progress.

"Tomorrow, Sir."

"And the crews will be ready, too. We should be able to cover twenty to thirty times the area per day we did by ground crews. If there's any iron ore within five thousand kilometers, we should find it in the next few months."

"If the worgs last that long, Sir," Captain Gatis injected.

"Captain?" the Colonel looked puzzled.

"Well, Carlston has projected various phases of the metabolic

changes. His work to now predicts certain critical effects in four to six weeks."

"Meaning?"

"He's not sure. The best guess right now is based on comparisons with other life-forms, both here and on Earth." The Captain paused. "The worgs are like our insects. Their very make-up should have suggested the possibility of a metamorphosis to us before. If the analogy is correct, this new form is the breeding stage." He paused again.

"Go on."

"The problem is time, Sir. We've been here for four years. We've seen no major changes in the worgs 'til now. That means they've got a long life span. If they breed, lay eggs or whatever, and die, like insects do. . . ."

"Then we'll have no worgs?"

"Exactly," the Captain continued, "and no way of predicting how long it will be 'til we have more."

"What about the four-to-six-week crisis?" the Major asked.

"Carlston thinks six weeks will bring the mating season. After that, well, present food input and energy output indicate a below-sustenance level within eight, maybe nine, weeks."

"Major," the Colonel started to speak but was anticipated by the Major.

"Yes, Sir, the detectors will be ready tonight. I'll see to it, Sir."

As the Major left, Doctor Hyotte stepped away from the window and toward the Colonel's desk.

"Colonel, I think I've got those attacks by the Toppers figured

out." The doctor paused briefly, then turned back toward the window. "I think it was instinctive, too."

"How's that?"

"Look at the forest. In the last three days, our worgs have almost stripped this area. They eat all night and all day now. In a month, they could destroy this entire forest area. The Toppers weren't after us, they were after these shells." The doctor gestured to the curved ceiling above them. "They sensed that the worgs were getting ready to change. They thought, or instinct told them, that if they could kill the worgs, they could save their homes."

"And the Settlement looked like . . ."

"Like what it is, dozens of worgs. All in one easily attacked spot. Out in the open, not half buried in some swamp the way they normally spend their sleeping hours."

"Except these are dead!" Captain Gatis retorted.

"Yes, but live worgs, with crews, moved in and out every day. The Toppers had no way of telling which was which."

"Then why did they panic when my crew came back?" the Captain asked, leaning forward in his chair.

"Your worg was already well into the change. It was a real danger to them. And to their young at home."

"So they ran home to save the kids?"

"Well?" the doctor looked from the Colonel to the Captain and back.

After a thoughtful pause, the Colonel answered.

"It makes sense. Maybe, if we don't find that iron, we'll hang around and see it all again, next cycle."

"Yes, maybe."

The group laughed together, but the humor held a touch of serious concern.

IX

Only two hours after they had left camp, the first crew returned to the Settlement. Captain Snell dropped to the ground and stormed angrily into the Technical Compound.

"Who put that piece of junk together?"

Major Mattson turned to meet the affront. "What's your problem. Snell?"

"That detector you gave us. It's lousy."

"Doesn't it give you any readings?"

"Ooooh yes, we get readings. We get constant readings. It's too sensitive!"

"Calm down, Captain," the Major answered soothingly. "Bring it in. The engineers can adjust it in a few minutes."

"It's on its way in."

"Good. Let's go cool down and get a cup, shall we?"

"I'm sorry, Matt, I—" the Captain began to apologize.

"C'mon, let's get a cup."

* * *

"Excuse me, Major." It was twenty minutes later when the young Engineer approached the table where the Major and Captain Snell sat.

"Yes, is the detector ready?"

"Well, yes, Sir, it is but . . ." he said, hesitating.

"But what?"

"Well, there's two things, Sir. There wasn't anything wrong with the detector . . . and . . ."

"And?"

"And we have three more crews back with the same complaint."

* * *

Within an hour all the crews were back. Within an hour, all the detectors were sitting on a large table in the engineering section, surrounded by the officers of each crew and one very distraught Colonel.

"Let me get this straight, Matt!" As the Colonel spoke, the others fell silent. "You say the detectors all check out here, with your people?"

"Yes."

"But the worg crews can't handle them?"

"Well, not exactly, Sir. They check out here, no matter who handles them. Our engineers or the crews. But they seem to be useless aboard the worgs."

"Why?"

"I don't know."

Silence. Then from the edge of the room, Carlston's voice broke in.

"Topper's Blood."

"What? What did you say Carlston?" The Colonel's voice carried a tone of threat.

"I said, 'Topper's Blood.'"

"Carlston, if you're trying to be funny . . ."

"No, Sir," he answered as he moved toward the table. "Hear me out. Captain Gatis, do you remember the argument between Blair

and Lieutenant Dixon about Topper's blood?"

"Yes," the Captain responded. "Blair said something about the Topper's blood probably having a lot of iron . . . to be so red?"

"That's the one. Dixon contended that if there were any heavy ores, it would have to be deep, too deep for us to get to. But the question still remained of the Topper's red blood. Where do they get their iron from?"

"So?"

"Now the detectors give 'falsely' high readings every time we take them on the worgs."

"The ponders!" the Major's words struck home.

"That's it," Carlston agreed. "The Toppers have iron in their blood. The worgs now have iron in their intestines. Iron from the leaves of those trees. Those ponders run four to five hundred meters high. Their roots could go down twice that far, who knows?"

"What kind of concentration can it be, Matt?" The Colonel reentered the conversation. "Can we refine it?"

"It's organic. All we have to do is burn it off."

"It's got to be high enough to register on the meters," Carlston injected. "Otherwise, we wouldn't be in this meeting, would we?"

"Each worg consumes tons per hour, Sir." The Major expounded on the theme. "It's probably more concentrated in the waste than in the leaves themselves. If it's a few tenths of a percent, we can get hundreds of pounds a day, from each one."

The group broke into a buzz of

excitement. Two engineers talking with Major Mattson grabbed detectors and ran out the door. They returned a minute later with broad grins. One spoke.

"It checks, Major. Both detectors give identical readings. The worgs are flying ore deposits."

"Hmmm. By the way, Carlston." The Colonel turned toward the Sergeant, a frown wrinkling his face. "This meeting was called for, uh, 'officers.' Might I ask what *you* are doing here?"

"Well, Sir, I . . ." Carlston backed away slightly from the Colonel's stare.

"Captain Gatis!" The Colonel snapped as he turned away from Carlston.

"Yes, Sir?"

"Why don't you see what you can do about this situation!"

Catching the twinkle in the Colonel's eye, the Captain grinned broadly as he answered. "Ahh, yes, Sir! I think a promotion *is* in order."

Epilogue

"Well, how does it look, Doc?" Major Mattson asked. "Is he going to live?"

The doctor carefully removed the last of the bandages from the Colonel's arm.

"I think so," he quipped back.

"When we get back to Earth, I think I'll change doctors," the Colonel mused under his breath. Then, still barely audible, he continued, "and maybe technical officers, too."

"Ouch! That hurt," the Major mimicked pain at the response.

"Seriously, Sir, are you going to grant Captain Gatis's request?"

"I think so . . . he and Carlston deserve some special reward, but I don't know if staying here till we return is reward or punishment. They've got several others who want to stay, too. Good men, every one of them. Carlston wants to follow the worgs' life cycle clear through. Plus the Toppers and several other creatures they have in mind. It should be of tremendous help to future colonization."

"Colonel, could you please hold still! This arm is healing nicely but if you keep twisting around, I'll never get it cleaned up."

"Okay, Doc." The Colonel laughed and turned to continue his discussion with the Major.

But the surgeon interrupted again. "A-hah! What have we here?"

"Huh? . . . Ouch!" the Colonel winced.

The doctor held a small, squirming thing at the end of a pair of tweezers.

"What's that, Doc?" The Major reached over to take the tweezers from the surgeon's hand.

"Just a little parasite we've picked up here," the doctor replied in an unconcerned manner as he returned to dressing the wound. "They get into almost any new wound. Apparently feed on the scab."

"Hmmm," the Major nused as he held the tiny parasite. "Kinda like we feed on the worgs, huh, Colonel—" Tossing the squirming dot toward the doorway, he stared after it as it slowly crawled away. "I wonder what he really wants?" ★

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DUET

Christopher Sefton

**You know you're going crazy when
you start talking to yourself.
But when you hear an answer. . . .**

MY FEET ARE COLD. What an absurd thing to notice in the middle of committing suicide.

The cellar is very dark, and this corner of it is hidden behind the refuse of a decade's experiments. The carrion-sniffers of this world will not search here for a long time, and even when they do, they won't understand what they find.

Eight short years and two long ones have passed since I consigned the Transporter to this silent corner. In all that time I have mentioned it to no one. The notes on its construction are in a separate, secret file. In theory, it should sunder the bonds of reality; a cosmic hat trick; place the rabbit on the grille, and watch it vanish into another probable existence! But I have never been able to bring the rabbit back. Perhaps I was wrong from the start. Perhaps there is no other branch to leap to in this tree of events. Perhaps I have only invented something which quietly disintegrates matter. Ah, the useless speculations

I have indulged in over the years, trying to fathom this engine, knowing it was useless—and dangerous—as it stood.

But now, as I shiver in my cold cellar, it seems to me that I kept it secret for reasons I could not have guessed. I think that I knew I would need it someday. A sad and terrible foresight, if so.

Helene . . .

That woman! I cry, I rage . . .

Every man has his uncontrollable fascinations. I have never been able to deal rationally with Teutonic women, particularly those of a Wagnerian aura, young to my middle-age, tall to my short, each strong as a mail-clad Valkyrie. Helene was like that. Not unflawed, for she had grown up in Sweden, not her native Germany, but the resultant unlikely accent and audacity of stance only excited me more. They gave her the illusion of accessibility.

We met two years ago at a boring party. Her father's cartel was at-

tempting to hire me, and she, obviously, was the bait. I admired this ruthlessness in her father; he knew me, knew my weaknesses. He would do what he had to to achieve his end. That he would go so far as using his own daughter to entice me was intensely gratifying.

I assumed at first that our "courtship" would run along predictable lines. There would be several weeks of delightful pursuit and then the ecstatic capture, followed in short order by boredom, and then I would leave. She and her father would discover that I could be ruthless, too. But I was wrong, so very wrong. Instead, she remained out of my reach, close but far away, saying one thing and doing another until my head spun. Without actually noticing the transition, I became like the unfortunates duped by a stage hypnotist, hunching their shoulders and scratching like chickens on command, totally oblivious to their folly.

Three times in two years I have tried to leave her, but she always tempted me back. I could not say no.

I loved her. I can't say why. I love her even now.

And then, this morning, I gave in. I thought: I will give her everything of me. I took the train to the city, going first to her father's Manhattan offices, where an assistant cheerfully guided me through a maze of contracts and hidden clauses. I signed away my creations. They hardly mattered when all I dreamed of was signing over my life to Helene. I was in a frenzy when I finally found her, in a pub on 66th Street we had often eaten

in. She was with an impossibly handsome young man. When she saw me, she sent him away with a smile and a light kiss on the cheek.

Her smile for me was exactly the same. Wary, but somehow inviting.

"This is a surprise, Joseph. I wasn't expecting you to emerge from your den and spirit me away until tomorrow night. Don't bother to be jealous of Roy—an old friend, but we owe each other nothing." Her hand trailed gently over the back of mine.

I told her everything. That I loved her (which I had said before, to no practical effect). That to prove my love I was giving up my world for her.

She laughed callously. "Papa will be glad to hear that you've finally given in to the siege."

"I didn't do it for your father—I did it for you! I gave up everything!"

Her eyes flashed acidly. "Am I to be flattered? To be loved in the manner of a schoolboy by an old lecher? Go away, little man. I got what I wanted."

That was three hours ago. The pain is worse now.

I am shivering on the grillework, my feet bared for better contact with the field. It took little effort, after actually reaching my decision, to juryrig a control that could be activated from within the Transporter itself.

She used me. Used Joseph Argos, honored and respected, a self-made man—not an ancient fool, but a man!

But then, I had allowed her to use me, hadn't I? What kind of man does that?

There is nothing left for it but to call the curtain down. I shift my shoes and socks from one hand to the other so that I can press the control.

Nothing, at first. And then, at the very edge of sight, a trembling of shadows.

They begin to whirl, grey as the ghosts of memory. Bright colors peek through their curtain. Suddenly I am in a cylinder of screaming light; it shatters my sight, dislocates my reason. A roar sweeps up from all sides, drowning me, as I lock out my awareness of the pain and whisper, not to my life but to her: *goodbye . . .*

* * *

When I come back to consciousness, I am still in the cellar. Worse than that. I am still alive.

I am crying silently over that sad fact, admitting to myself that I lack the courage for a more conventional form of self-murder, when some analytical part of my mind that has been frozen ever since Helene's laughter clicks back into place.

My cellar had walls of red brick. These walls are concrete.

The realization comes that simply.

I can't help it; I start to laugh.

Immediately an angry voice echoes back from the other side of the cellar. "Who is that? Who has broken into my home!" The speaker is out of sight behind a tumble of packing crates, but I know who it must be. I have been hearing that voice on my taped notes for years.

"Calm down, Argos. It's only yourself, come blindly in search of heaven or hell. Or plain death. Which is this, anyway?"

"Well," he answers, stepping into view, "this is a surprise." The light behind him throws his shadow at the foot of the Transporter. I cannot see his face, but I can feel his cool appraisal of me. It is much calmer than mine would be were our positions reversed. "So the device *does* deliver its burden alive, and—I presume—functioning as well. I never was sure, test animals being unrecoverable. Pleasing."

"Yes and no."

"Any dizziness? Pains? This is an invaluable chance to learn more of the Transporter's effects. How far have you come?"

"Not very, it seems. But how much can I tell from a cellar? In fact, how to measure the differences between universes at all? You take quantitative, I'll take qualitative, and we can have a hell of an argument."

"You are in rather an uncommunicative mood."

"Put yourself in my place," I say, and only then realize how baroquely funny the phrase is in this context. "No, don't bother. You wouldn't like it. I'm cold, and hungry, and depressed. I'm perfectly willing to talk—what else is there to do?—but after I take care of the first two." I sit down and start to put on my shoes. He blinks at me, owlsh behind his glasses (which are bifocal, just like mine) as he takes his own internal counsel.

"All right. Please stay down here for a time; there is a couch you may

use. There are blankets. I will bring you some hot food."

He invites me down with a gesture both polite and subtly denigrating, then leads me to a ragged couch covered over with a dusty brown army blanket.

In my home it was not a new couch, but it was not *this* ragged.

No matter.

He turns to leave. Pauses. Turns around and faces me once more.

"Just remember; this is *my* home."

And then he is gone.

* * *

After a time I hear shouting upstairs, muffled by wood and metal and stone. The voice is clearly my double's. There is another voice, painfully familiar, but it is never raised in anger. I cannot tell what either actually says.

* * *

"Argos . . . it feels odd, referring to you with my name."

I sip my soup. It is now cold; he had brought it to me lukewarm. "It's my name, too."

"Our name, then. This will take some getting used to. We are *Doppelgangers*, like out of legend."

I hope not. Seeing him in a clear light is disturbing. Surely I do not look so old, so ugly. It is hard to believe that he is my age, a mere forty-eight. And there is an ill-defined light of fanaticism in his eyes. If I weren't so depressed over my own lot, I might be worried for his.

"Why did you take this chance?"

he asks, his eyes sharp as a goshawk's. "I am suspicious of you. This talk of depression, this self-pity. It is unmanly. So tell me, why did you use the Transporter? Don't say 'for science.' I would like to believe such a fiction, but I can't. Not in any world would I be that foolish."

"Are you always this abrasive? You must have even fewer friends than I did."

"Facile, answering my question with one of your own."

I sigh. "I have been blindly stupid for two full years and you expect me to be able to sum them up in an elegant epigram? Don't be an ass. There are only three practical things I have gained from this experience, all of which I am glad to pass on. One, never sign your work away, no matter the provocation. It isn't worth it. Two, for the comfort of any who might follow my epic leap, attach a heater to that goddamned Transporter grille. And three, don't ever wear that shirt again. We look horrible in it."

"I wish a grammarian were here to record these struggles with pronouns. Go on."

I pour tea from the thermos he brought me with the soup. Steam curls up from the mug—thank god, something hot at last. I wrap my fingers around the warmth.

"What you really want me to do is confess. All right, why not? My own world is gone forever, so can it matter? I used the Transporter, more than half hoping it would kill me, because of love."

"Nonsense." His face is harsh, as if he denies the emotion's existence.

"You might be right. Not love, then. Instead let us call it the lack of love, a failure to win the woman I craved. Her name was Helene. A remarkable woman. Whore, angel, goddess, little girl . . . she could be any of them she cared to be, when she cared at all. I loved her with a passion I never knew I was capable of, before—"

The other Joseph Argos starts to laugh bitterly.

"Have I said something funny?"

"Not merely funny—*hilarious*. You blind, romantic idiot!"

My eyes are narrower in anger than his are in mirth. "That's enough of your insults. Either explain yourself or—"

"Clearly," he says, breath still quivering with repressed laughter, "we share only appearance, and not temperament, or you would understand."

"Meaning?"

"Let me quote you. 'Not very far, it seems,' you said, when I asked you the distance between your world and this one. But it was farther than you thought, much farther!" He can hardly speak for laughing, but then calm takes him, sudden as a serpent, and he cocks a finger at me in the gesture I once used to lecture particularly obtuse students. "Trust me, Joseph, when I tell you the bitch was not worth the anguish."

My first angry impulse, even after all my suffering, is to strike him for insulting her. "And how do you happen to know the character of Helene Falk?"

"Dear self, that is the simplest part of it. Look; there are two of *us* here. Stretch your mind! You

chased your Helene in vain for two years, whereas I, in this universe . . ."

"Impossible!"

"Not at all. I married the frigid bitch, and I regret it dearly."

* * *

It is fully ten minutes before I can speak to him. He watches me warily as I prowl the cellar, my muscles straining against the awful futility of life. I want to hit something. At one point I do snap, pulling down a crateful of short aluminum pipes, which clang and roll across the cellar floor in random dispersion.

And all he does is watch me, waiting for the fit to pass.

If there are gods who rule over man, then they are all sadists. In my world I loved a Helene who saw me as nothing more than another kill for her father. A longer stalking than most, perhaps, but unnotable beyond that. Yet in this world there is a Helene who gave freely in response to the blandishments of Joseph Argos, only to find herself soul-bound in a liar's bed, tied to a hollow man.

My anger is incredible, but pointless. At last it ebbs. More than ever I see how final a step I took in throwing away my world. The patterns here are different. I tell myself that I have no choice but to accept them.

Of course that does no good. I can think only two things: I am lost, Helene is lost.

I continue to pace, avoiding the pipes I have spilled. The silence is

oppressive, horribly so, and at last I shudder and give in and start to talk to my other self.

The topic of Helene is laid aside for a time; an unspoken truce has been called. Instead we talk of our respective worlds, noting the unpredictable differences in our lives, our projects, our ambitions. I am forced to acknowledge that he is a brilliant man, perhaps my intellectual superior. But there has been a more practical bent to my life. I was richer in my world than he is in his, more of my work applied instead of purely theoretical.

At these moments in the comparison he usually insults me for not being faithful to the purity of scientific thought, but I know better. He is jealous.

Two hours pass before we run out of convenient subjects to hide behind. I do not notice the first mention of Helene, but suddenly she is among us more strongly than before. I listen, distraught, as he recites a catalog of her faults. Then I move to defend her, explaining these "faults" as products of his imagination. It is difficult to say these things without knowing his Helene, but I remain steadfast in my central position: he is lucky to be in a world where she loves him.

I don't care if we share a face. *This man is not me.* I am no cynical hypocrite, damning a woman for her frigidity one moment and then implying, in the next, that she cuckolds me on a dozen fronts. If I ever were that man, or had the potential to be, he'd died forever in the whirling shadows.

I do not merely dislike this carnival-mirror version of me.

I hate him.

"A week after the wedding," he says pleasantly, enjoining my discomfort. "I realized why I had actually gone to the extreme of legalizing the affair. She was the perfect bauble to dangle in people's faces, a prize that proved short, ugly Argos could capture beauty as well as honor. There was a certain prestige in owning her. And *before* the marriage I had every reason to suspect that she would grace my bed as admirably as my awards decorate my office."

"This is vile. You talk about her as if she were a piece of meat."

"Isn't she?"

"Why do you hate her so? Don't be blinded by beauty—the person within is more complex than she looks. In my world—"

"Precisely. In your world." He leans back, straightening his coat where it has pulled up over his round stomach. "I would very much like to meet that Helene. She sounds like cold fire. I would enjoy that. But the Helene here is an immature creature, ruled by whim and blown hither and yon on the winds of deceit. She is both an annoyance and a grave disappointment."

"Then divorce her," I urge. "Let her find someone more deserving."

"That is a remarkably feeble insult."

"It's the best I can manage under the circumstances."

"I will ignore it. As for divorce, I probably will, but I've no intention of taking that easy road out until I'm through victimizing her. Don't look so startled! This world has been as unfair to me as yours

was to you. The little whore kept up a false front throughout our courtship, fooled me into marrying her, and I am convinced now that her instincts were purely mercenary, that she did it all to feed off my fame and position in the community. Seeing as I've received little in return, I intend to leave scars before I release her to her sordid pool of friends. Let her lovers appreciate her then, if they can."

At this terrible statement I can only turn my head.

I hear him rise, releasing a single heavy breath. His grey trousers rustle as he steps into my new line of sight. I look up; our eyes lock; and we both see there can be no sharing between us.

"What exactly do you plan to do? I won't suggest another jaunt on the Transporter. You might not be so lucky a second time. But I am sure you can see that there are certain difficulties in having two respected scientists with the same name, same face, perhaps even the same fingerprints, living in one community. This leaves us in a quandry. It's a shame, really. When I first saw you, I thought we might be able to work together; we could certainly accomplish mighty things with this trick of being in two places at once. But . . . no.

"I repeat myself; what are your plans?"

His tone of voice is calm, almost friendly, but his eyes betray his real intentions.

"Just how much do you hate your Helene?"

He is not expecting another question on that matter. It takes him a moment to reply.



"Well, now . . . quite a lot. Yes. I would very much like to kill her, except that that would bring the torture to a premature end."

I collapse to my knees with a broken sob, bowing my head against slumped shoulders.

"Come on, you snivelling bastard, get up. We've got to decide what you are going to do."

"Joseph," I say as I stand, "I am going to do the proper thing."

The look on his face when he sees the pipe in my hand is beyond price.

* * *

I must be the first man in history to commit suicide and still have to dispose of my own corpse. No matter, easily done with the Transporter handy. I drop the bloody pipe on the grille and dump the body after it. Where he is, he won't mind the cold.

Shadows spin. I squint my eyes against the sudden flare of bright color. When I can see again, there is nothing on the grille.

The next half hour I spend scrubbing blood from the floor, and shifting crates to cover what stains are left. I can effect something more permanent later. Helene is not in the house when I go upstairs, which fans my impatience at the same time it makes me sigh with relief. This way is better, I know, and I can count myself fortunate.

His bathtub is not as large as mine was.

* * *

She comes home at sunset and

finds me waiting for her in the hall chair. I have used the last of the afternoon to study the house, skim my other self's files, read newspapers and magazines. My fit into his role must be as smooth as possible.

Her expression is startled. Understandably so. If her false husband, that other Argos, were in my place, it would signal the beginning of some new cruelty.

But no more.

As gently as I can, I say "Welcome home, my love."

She steps back into the door, disbelief plainly written on her face. She holds a large brown shopping bag in front of her like a shield.

I can only stare at her, lost in a joy so intense it is numbing. *It is Helene*—the same but not the same, familiar and yet new. Her eyes, wide at the sight of me, are the same beautiful gold as those that had condemned me only hours before. Her figure is thinner from care, but still good, and though there are the shadows of premature wrinkles on her face, she is my Helene, the one I was born for. I can feel it.

The reverie ends. She is taking her cue from me, waiting to discover what the trick is. But there will be no trick. I rise, reach forward, and carefully draw her right hand from its grip on the bag. I kiss it.

"Don't, Joseph."

"But I want to. When I love a woman, I want her to know it. Come now, where have you been, what have you done? I want to know. I feel like I've been waiting for you to come home for years."

One of her eyebrows arches like

a bird's wing. "Are you well?"

"Of course I'm well. I just missed you." Inside, I chuckle. I can see her ticking possibilities over in her mind: he is planning something; he lies; he is angry at me for being gone so long; he thinks I've been with a lover—God, how I wish!

"If you say so," she says, casting a glance behind her as if to check possible routes of escape. Then she steps quickly past me. I shut the door. The tension in her shoulders is pitiable. Having turned her back on me, having made herself vulnerable, she expects a blow to fall.

The longer I am in this world, the more horrified I grow at "my" action in it.

"I'm sorry I'm late. I was at the market picking up things for dinner tonight, but when I wanted to leave, the car wouldn't start. The battery was dead. I had to buy a new one. I didn't want to spend the money, but the man with the tow truck said the old one was past help, that it wouldn't hold a recharge, so . . ."

I smile. "That's fine, Helene. You did the right thing."

"I did?"

"Yes."

"Are you *sure* you're well?"

"Never better. Here, let me take the bag." Freed from that grip, her hands seek each other. They squeeze themselves white.

"We've got to talk about last night, Joseph. I know I don't say things clearly enough to please you, but this is important. So many strange things have been happening—"

I cut her off. Obviously they had

some argument, but it is not relevant to the new order of things.

"It doesn't matter, darling. Just relax. Perhaps after dinner we can . . . yes, that's just the thing. After dinner we will take a hot bath. I will scrub your back and listen to whatever you wish to say."

"Bath? But you never . . . I mean . . . Joseph, this is *very* important . . ."

"We can be just as serious in the tub, and much more comfortable than we are standing here like marble statues."

"Well . . . all right. I suppose it was meant to wait."

"Helene . . ." Her sadness stirs me. I put down the bag and take her into my arms. I kiss her. At first she resists, but that passes, becoming simple indifference. No matter. I am happy. There will be time to teach her what love can be like.

We walk together into the kitchen. There we kiss again, and this time she does not shy. In fact, the kiss is so intense that I am caught by surprise. My own Helene had never opened to me like that.

"Lord! If dinner is half the quality of that kiss, darling, it will be the greatest meal of my life. What are you cooking for us?"

She looks at me oddly.

"Lamb, of course. It's what you *told* me to get. Don't you remember?"

A faux pas. Damn. I try to make complimentary excuses, saying that the sight of her drove all memory from me, but I do it far too clumsily. When I leave her to begin the meal, her face is still troubled. Clearly I must be careful about ask-

ing questions. Even the most innocent one might betray me.

But we will both adjust, given time.

I go to the library. In the corner where I had kept my favorite chair there is only a naugahyde monstrosity. My other self had been a cheap man, as lax about maintaining his house as his marriage.

While I occupy myself with more journals, I hear creaking noises from the hall and stairs. One more sign of how poorly built this house is. I know—I will build another one. I will build a proper mansion for my new wife, something to celebrate a miraculous beginning.

What a bizarre, remarkable day. I regret none of it.

* * *

The lamb is delicious, its spicing a culinary marvel. The old Helene could not cook to save her soul. The new one continues to shine in comparison.

She does not speak much during the meal. What talk we have is pleasantly inconsequential. I watch her throughout, something which gives me even more pleasure than the food does. She has changed into a formal but simple tan dress. Against it her hair and skin seem to glow. She wears little makeup, and has even less need of it.

There is a veil over her emotions, but it does not worry me. One day I will look and it will be gone.

Part of the veil seems to be . . . resignation?

No, I am imagining it. My happiness doubles and redoubles. An exquisite meal.

After dinner is disposed of, when we sit alone with each other and the wine, I start to praise her cooking.

She interrupts me. There is more strength in her manner than there was this afternoon, which pleases me. But her words . . .

"Joseph, I have something very important to say and not much time to say it."

"There is the bath, my dear," I point out.

"Why are you pretending to be kind? Drop this act, Joseph—it doesn't begin to make up for things."

"Ah, but they will be different now! I promise you an idyll. No, nothing that foolish. Forget I said that. What I promise you is a real marriage, with love at its core. I'll prove it. We can go travelling if you want. I'll—" I intend more, but a belch stops me in mid-sentence. I have eaten far too much. My feeling of pleasant fullness is turning into stuffy discomfort.

"Two years, Joseph. You turned so hateful when we married. I never understood that. I thought it was my fault. I was so gullible, so ready to believe you. You *made* me guilty, just like you've done your best ever since to make me crazy. I haven't had a loving marriage—unless you call all those beatings love!"

"Now, Helene—"

"Don't even try to be conciliatory. That's a trick of yours I stopped believing a long time ago. I wish that was all it would have taken to leave! But I couldn't. You were always right about that, I didn't have the strength to leave you."

"Wait, please—give me a

chance!" Why are my ears ringing? When I speak, my voice seems to echo. "I am a new man. How new a man you cannot guess!"

"Is that the tenth or eleventh time you've said that?"

"This time it is true, I swear it. Just—ummph. Pardon me, I have eaten too much—just give me an opportunity to prove it."

"No."

"Helene—"

"No. You can't sway me any more. I almost broke down when I came home and saw you waiting, but somewhere I found my strength, and you can't sway me any more. Don't even try. Just listen to me, this last time. I went into your cellar last night, after you beat me, while you were sleeping. I wanted to smash things! I wanted you to wake up to the sound of one of your precious projects being ruined. I thought if I could make you angry enough, you'd kill me, and I'd finally be free. But I didn't get a chance to touch anything.

"The most amazing thing happened. Two years of prayers were answered last night, and the hysterical part of it is that I have you to thank for it!"

This becomes more and more confusing. To worsen things, my indigestion has become nausea, the ringing a fierce headache. I feel sweat on my forehead. "What are you talking about, blast it?"

"You. Darling."

I swear a silent oath; I will never eat spiced lamb again. The room seems to balance on the edge of collapse, as flimsy as a card castle. I barely hear her. "What?" I draw in a heavy, ragged breath. "Helene,

please help me to the couch. I am not feeling well."

The world flickers.

Just once, but it changes everything. I see what must surely be hallucinations.

I see Helene's face; unconcerned, implacable. I see an indistinct figure behind her, standing in the shadows of the curtain. I am sure it was not there during the meal . . . my body begins to tremble with a frightening violence. I am alternately frozen and on fire.

"Please, Helene, help me . . ."

"Like you helped me?"

I fall from the chair, spilling blood-red wine on the tablecloth and floor.

"I won't argue with miracles, scientific or otherwise. I needed one too much. Last night he came to me in the cellar, out of nowhere, needing me like you never have."

A moment passes in which I can see nothing at all but a chill blackness. Then vision returns. Helene is standing above me, her downward gaze still untroubled. I reach up, weakly, for her hand.

To her side is the obscure figure, now distinct, holding Helene's taller body within a comforting arm.

I scream.

"Au revoir, Joseph."

The last thing I see, before the dark circle closes in from all sides to smother the pain, is my own tender smile.

* * *

"That was so hard to do. If you had come here even a month ago, I don't know if I could have hated him enough . . ."

"Hush, love, it's silly to talk about. I came here when I came here. And it isn't as if Joseph Argos is really dead. Just a warped version of him, a perversion of a good man. That is to say, me." He pulled her head down and kissed her. He had kissed her a lot since the night before. It was still so new to him, his good fortune. "I'm proud of you."

They clung to each other, hungry to think only of each other and not their pasts. His hand moved down her back suggestively, but she stopped him.

"We have to do something about the body."

Carrying the corpse downstairs was much more gruesome than watching its death had been, even after wrapping it, mummylike, in the stained tablecloth. It was a clumsy burden. They dropped it on the stairs and it crashed to the bottom, shaking the whole house, and though they tried to laugh off their nervousness, they couldn't.

Neither relaxed until after the Transporter had done its work. They did wonder why there was pipe all over the floor, but not for long. There were much more important things to think of.

Back upstairs they did something about that. He was very careful of her bruises.

* * *

In the middle of the night, as they lay locked together in sleep, there was more motion in the cellar.

The deep shadows trembled, and then spun. Rainbow flashes chased round the room, and when they departed, there was a still body on the

Transporter grille. Not dead; only unconscious. The cellar chill soon revived her.

She stared at her surroundings in hatred, too deep in her own murky thoughts to notice that there was no linoleum on the floor, or that the light fixtures were fluorescent. Beat her over the head, would he, and leave her in a freezing cellar while he screwed around upstairs? She had turned her head too many times; she was a Christian woman; she would abide his faithlessness no longer. Hadn't she done everything he ever asked of her, and never asked for anything in return? Hadn't she worked to make him great, and then later to salvage as much of their reputations as she could, not that there was much to save, the way he catted from one bed to another. That . . . lying . . . adulterer! And he dared to complain when she tried to do the right thing? *He dared to hit her back?* He . . . he . . .

The thought dissolved in inarticulate fury.

Pipes all over the floor. Typical of him.

Helene picked up one length in each hand, thinking: *I'll kill him, I'll kill him, I'll kill him . . .*

* * *

And in an infinity of universes, in an infinitude of cellars and attics and barns and warehouses and bedrooms and forests and office buildings and, in fact, everywhere an analog of Argos had built an analog of the Transporter, things were balancing out. *Shadows, colors . . .* ★



JEM, Part II
Frederik Pohl

At the Tenth General Assembly of the World Conference on Exobiology in Sofia, Bulgaria, DANNY DALEHOUSE hears for the first time of the semi-stellar object N-OA Bes-bes Geminorum 8426—sometimes called Kung's Star—and its planet, Son of Kung, or Klong . . . or JEM. Jem is inhabited! Not with just one intelligent species, but with three: a race of sentient hydrogen-filled balloons, weasel-like burrowers and hard-shelled arthropods. They are the first sentient life discovered anywhere in the universe off Earth.

The race to explore Jem is on. All three of the great power blocs of terrestrial nations prepare expeditions: the Food countries, like the U.S.A. and the Soviet Union; the oil-rich Fuel bloc of Venezuela, England and the Arab states; the People's Republics, headed by China.

In Sofia, Dalehouse has met and had a brief affair with CAPTAIN MARJORIE MENNINGER, a young American Army officer with shadowy family connections into the mysterious high levels of government and intelligence. The two of them get into a scrape with the police and are rescued by ANA DIMITROVA, a translator for the Conference. Ana is Bulgarian, and therefore also a member of the Food Bloc, but she is in love with AHMED DULLA, the Pakistani who presented the report on Jem, who is a Peep. Marge Menninger promises to see that a Food Bloc expedition will go to Jem, and that Dalehouse will be on it. She keeps her promise, but the Peeps are quicker. Dulla's expedition is the first to land.

Arriving first is not all advantageous, however; Jem is full of perils. The chemistry of its biota is hostile to terrestrial life, and most of the Peeps become quick casualties with severe allergic reactions. Some die. Dulla attempts to establish contact with the Krinpit, the armored, crab-like creatures. The allergic process works both ways. Dulla becomes ill and helpless in the Krinpit village, and so do many of the Krinpit. Some of them die, including the mate of the Krinpit named Sharn-igon.

When Dalehouse's expedition arrives on Jem, its leaders have learned some lessons from the disasters that befell the Peeps. But the planet still has surprises. Dalehouse and his friend, the Russian pilot KAPPELYUSHNIKOV, attempt to establish contact with the airborne race of balloonists. They have some success, and decide to build balloons of their own to join them in the sky. They even observe the balloonists spawning over their camp. Scientifically, this is a triumph. But as they breed, the balloonists secrete a spray which is both hallucinogenic and aphrodisiac. It is the finest high on two worlds—and the whole Food camp trips out.

VII

Ana Dimitrova sat at a window table of a Greek tea shop in Glasgow, writing industriously on her daily letter to Ahmed. She did not send them all. That would be ruinously extravagant! But every week, at the end of Sunday, she spread them out on a table and copied out the best parts, enough to fill four

dots in a microfiche. It was never enough. She leaned forward into the northern sunshine, left elbow on the table next to the cooling cup of strong, sweet tea, head resting on the hand, oblivious to the noise of the lorries and the double-decker yellow-and-green buses on the Gallowgate road outside, and wrote:

—it seems so long since last I kissed your lovely eyelids and wished you good-by. I miss you, dear Ahmed. This place is terrible! Terrible and strange. It smells of petroleum and internal-combustion engines, the smell of wicked waste. Well. They have only another five or ten years and then their North Sea oil will be gone, and then we will see.

The headaches have been very bad, I think because these languages are so uncouth. It is actual pain to speak in them. It will be all right, though, dear Ahmed. The headaches pass. The ache in my heart lasts much longer—

“More tea, miss?”

The harsh English words crashed into Nan's ear. She winced and raised her head. “Thank you, no.”

“We'll be serving lunch in just a bit, miss. The souvlaki's very tasty today, cook says.”

“No, no. Thank you. I must be getting back to my hotel.” She had dawdled longer over the letter than was right, she thought remorsefully, and now she had to hurry, and the headache was back. It was not just that the woman was speaking English. It was the way she spoke it,

the rough Scottish consonants that buzzed and rattled in the ear. Although in truth it did not much matter what language, or at least what non-Slavic language, she was hearing. The headaches were more frequent and more severe. It was probably because she had become a diplomatic translator. The international vocabulary of science was easy enough to translate, since so many of the words had the same roots in all languages. In diplomacy the risks were greater, the nuances subtler and more threatening. The choice of an adjective meant nothing in translating a report on X-ray polarimetry, but in a speech about locating a drilling claim on the mid-Atlantic ridge it might mean the difference between peace and war.

Nan paid her check and dodged cautiously across Gallowgate, between the towering buses that so mischievously raced along the wrong side of the street. The diesel stink made her cough, and coughing made her headache worse.

And she was late. She was to be picked up for the airport at one, and it was past noon already. She walked virtuously past the shops (so bright and gay!) without looking in a single window. There were styles here that Sofia would not see for another year. But why bother? It would have been nice to buy new clothes to wear for Ahmed. With him so many billions of kilometers away, Nan usually wore what was easiest to put on, and least likely to attract attention. Evenings she spent alone when she could, listening to music and studying grammar. Her best treat was to reread the sparse

letters he had returned for her prodigious outflow. Although they were not stimulating. From what he said, Son of Kung sounded a grim and awful place.

She cut through a corner of the Green to walk along the riverside toward her hotel, hoping to avoid the noise and the invisible, but not unsmellable, exhaust from all the vehicles. No use. Lorries rumbled along the embankment, and the sludgy surface of the Clyde itself was pocked with oil tankers and barges and creased with the wake of hydrofoils. How did one *live* in a place like this? And it all could have been avoided. A little forethought. A little planning. Why did they have to put oil refineries in the middle of a city? Why stain their river with waste and filth, when it could have been a cool oasis? Why be in such a rush to pump the oil from the bottom of the sea, when it could have provided energy, even food, for another hundred generations? Why use oil at all, for that matter—especially in these packs and swarms of cars and lorries—when the city could have been built around public transportation, electrically powered, or powered with the hydrogen that Iceland, not so very far away, was so eager to sell.

But on Son of Kung. . . .

On Son of Kung it could be all different. She wished she could be there. With Ahmed. Not just to be with Ahmed, she told herself stoutly, but to be part of a new world where things could be done properly. Where the mistakes of Earth could be avoided. Where one's

children would have a future to look forward to.

Hers and Ahmed's children, of course. Nan smiled to herself. She was an honest person, and she admitted to herself that Kungson seemed all the finer because Ahmed was there. If only she were not *here*! There were worrisome things between the lines of what he wrote. So many of his expedition had been sick. So many had died, just in the first days—and his only letters had been in those first days. Why, he himself could have— No. She would not countenance that thought. There was enough to worry about in other things. In, for example, the picture he had sent of himself. He had looked worryingly thin, but what she had noticed most about the picture was the hand on his shoulder. The person who owned the hand was not visible, but Nan was almost sure it was a woman's hand. And that was even more worrying.

"Miss Dimitrova! Hoy, there. Nan!"

All at once she perceived that her feet had carried her into the lobby of the hotel, and she was being greeted by a man she almost recognized. Dark, short, plump, a little past middle age; he had a diplomat's smile and wore clothes that, even across the immense old lobby, she was sure were real wool. If not cashmere.

He filled in the blank for her. "I'm Tam Gulsmitt. Remember? We met at the F.A.O. reception last month." He snapped his fingers for a forkboy. "Your bags are all ready—unless you care to freshen up? Have time for a drink?"

Now she recalled him well. He had been persistent in his attentions, even to the point of lying in wait for her as she came out of the powder room and drawing her into an offensively close conversation in the hall. She had explained to him that it was no use. It was not merely a question of being in love with someone else. That was not his concern, she did not have to tell him her reasons. It was a matter of socialist morality. V. I. Lenin had said it. Free love was all very well, but who would want to drink from a glass that every passerby had fouled with his lips? (And yet in Moscow, she remembered, the public drinking fountains had just such glasses chained to them, and each one surely smeared with a thousand lips.) Let the Fuel powers do what they liked, partner-swapping, group orgies, whatever. She was not there to pass judgment, but a socialist girl from Sofia did not even smoke in the street, because she had been taught certain principles of behavior that did not leave her when she grew up.

"Sir Tam," she began—she remembered that he had one of those quaint British handles to his name—"it is a pleasure to see you again, but I must fly now to New York for the United Nations debate. I have no time—"

"All the time in the world, sweets, that's what I'm here for. Boy!"

Tardily, the bellboy rolled up with his forklift, and that was scandalous, too: her one little zipper bag did not need a fuel-guzzling machine to carry it, she had toted it a kilometer at a time herself. Sir

Tam chuckled indulgently. "Aren't we quaint? This great, rambling old ruin—that's the Britishness of it, isn't it? We're great at backing a losing horse long past the point where anyone else would have chucked it in. Lucky for us we can afford it! Now, is there anything else you need to bring?"

"But truly, Sir Tam, a car is being sent to take me to the airport. It will be here any minute."

"Here already, sweetie. I'm it. Our Government has provided me with a Concorde Three and I'd just rattle around in it by myself. When I heard that a friend of God Menninger's needed a lift, I took the liberty of coming for you myself. You'll like it. There's plenty of room, and we'll make New York in ninety minutes."

Scandalous, scandalous! Of course the British could afford anything, ocean of oil under the North Sea, their octopus tendrils already grabbing at the MidAtlantic Ridge. But morally it was so wrong.

She had no chance to object. Sir Tam overcame all objections, and before she knew what was happening, she was lifted gently by cherypicker into—dear God!—a supersonic hydrojet.

As soon as they belted up, in deep, foamed armchairs with a suction-bottomed decanter and glasses already on a little table between them, the aircraft hurled itself into the air. The acceleration was frightening. The way the ground dropped away beneath them was not to be believed. Strangely, there was less noise than she had expected, far less than the warmup roar of a clamjet. "How quiet," she said,

leaning away from Sir Tam's casually chummy arm.

He chuckled. "That's five thousand kilometers an hour for you. We leave the sound far behind. Do you like it?"

"Oh, yes," said Nan, trying to prevent him from pouring her a drink. She failed.

"Your voice sounds more like 'oh, no.'"

"Well, yes, perhaps that is so. It is terribly wasteful of oil, Sir Tam."

"We don't burn oil, sweetie! Pure hydrogen and oxygen—have to carry them both, this far up. Not an ounce of pollution."

"But of course one burns oil, or some other fuel, to make the hydrogen." She wondered if she could keep the conversation on propellant chemistry all the way across the Atlantic, decided not and took a new tack: "It is frightening. One can see nothing from these tiny windows."

"What is there to see? You get turned on by clouds, love?"

"I have flown the oceans many times, Sir Tam. There is always something. Sometimes icebergs. The sea itself. In a clamjet there is the excitement of the landfall as one approaches Newfoundland or Rio or the Irish Coast. But at twenty-five thousand meters there is nothing."

"I couldn't agree with you more," said Sir Tam, unstrapping and moving closer. "If I had my way, there'd be no windows in the thing at all."

Nan moistened her lips with the whiskey and said brightly, "But it is all so exciting. Could you perhaps show me around this aircraft?"

"Show you around?"

"Yes, please. It is so new to me."

"What's to see, love?" Then he shrugged. "Matter of fact, yes, there are a few features I'd like to call to your attention."

She stood up gratefully, glad to get his hand off her knee. The headaches had lessened, perhaps because now they were breathing quite pure air instead of the Glaswegian smog, but she was annoyed. He had made it clear that they were the only passengers, that was not deceitful. But she had expected at least the chaperonage of the stewardesses and they, all three of them, had retreated to their little cubbyholes in the aft of the aircraft. The little paneled lounge was far more intimate than she liked.

But worse was in store. What she had thought was a service cubicle turned out to be a tiny, complete bedroom suite. With, could one believe it?, a *waterbed*. Easily a metric tonne of profligately wasted mass! For nothing surely but profligately immoral purposes!

"Now there," said Sir Tam over her shoulder, "is a feature worth studying. Go ahead, Nan. Let your impulses carry you. Try it out."

"Certainly not!" She moved away from his touching hand and added formally, "Sir Tam, I must tell you that I am an engaged person. It is not correct for me to allow myself to be in a situation of this kind."

"How quaint."

"Sir Tam!" She was almost shrieking now, and furiously angry, not only with him but with herself. If she had used a tiny bit of in-

telligence, she would have known this was coming and could have avoided it. A delicate hint that this was the wrong time. A suggestion of, what? Of a social disease, if necessary. Anything. But she was trapped, the waterbed before her, this gland case behind, already with his lips against her ear and whispering buzzingly so that her headache exploded again. Desperately she caught at a straw. "Didn't—didn't you mention Godfrey Menninger?"

"What?"

"Godfrey Menninger. The father of my good friend, Captain Marge Menninger. You spoke of him in the hotel."

He was silent for a moment, neither releasing her or trying to pull her close. "Do you know God Menninger well?"

"Only through his daughter. I was able to keep her from going to jail once."

His arm was definitely less tight. After a moment he patted her gently and stepped away. "Let's have a drink," he said, ringing for the stewardesses. The satyr's smile had been replaced by the diplomat's.

The conversation was back on its tracks again, for which Ana was intensely grateful. She even managed to return to the little cubicle with the armchairs, and to persuade the stewardess to bring her a nice cup of strong *chai* instead of the whiskey Gulsmitt suggested. He seemed greatly interested in the story of Margie Menninger's little episode. In every detail: had they been fingerprinted? Was the People's Magistrate a court of record, whatever that was? Had Ana spoken to anyone in the militia about the inci-

dent later on, and if so, what had they said?

Such trivial things seemed to interest him, but Nan was contented to go on dredging memories up for him all the way across the Atlantic, as long as it meant his keeping his hands to himself. When she was wrung dry, he leaned back, nursing the new drink the stewardess had poured for him and squinting out at the blue-black and cloudless sky.

"Very interesting," he said at last. "That poor little girl. Of course I've known her since she was tiny." It had not occurred to Ana that Margie Menninger had ever been tiny. She let it pass and Sir Tam added, "And dear old God. Have you known him long?"

"Not in a personal sense," she said, careful not to add lying to the fault of being untruthful. "Of course he is of great importance in cultural matters. I too am deeply concerned about culture."

"Culture," repeated Sir Tam meditatively. He seemed about to produce a real smile, but managed to retain the diplomatic one instead. "You are a dear, Nan," he said, and shook his wristwatch to make the red numerals blink on. "Ah, almost there," he said regretfully. "But of course you must allow me to escort you to your hotel."

* * *

The morning session of the U.N. was exhausting. There was no time for a real lunch because she had to post-edit the computer translations of what she had already translated once that morning before they could be printed. And the afternoon session was one long catfight.

The debate was on fishing rights for Antarctic krill. Because it was food, tempers ran high. And because sea lore is almost as old a human area of interest as eating, the translation was demanding. There were no places where she could coast, no technical words that were new-coined and common to almost all languages. Every language had developed its own words for ships, seamanship and, above all, eating, at the dawn of language itself. Only three of Nan's languages were in use, Bulgarian, English and Russian. The Pakistanis were not involved in the debate, and there were plenty of others proficient in the Romance languages. So there were long periods when she could listen without having to speak. But there was no rest even in those periods; she needed to remember every word she could. The U.N. delegates had the awful habit of quoting each other at length—sometimes with approval, sometimes with a sneer, always with the risk of some tiny hairsplit that she had to get just right. Her headaches were immense.

That was, of course, the price you paid for having the two hemispheres of your brain surgically sliced apart. Not to mention the stitching back of parts of them that kept you from stumbling into things or falling down, or the DNA injections that left your neck swollen and your eyes bulging for weeks at a time, and sometimes caused seizures indistinguishable from epilepsy. That had been a surprise. They hadn't told her about those things when she signed up to become a split-brain translator. Not really; you never did know what

pain was going to be until you had it.

What made the whole day an order of magnitude worse was that she was starved for sleep.

Sir Tam had followed her to her very door, and then planted a foot inside it. His hands had been all over her in the limousine, all the way in from the airport. The only way she could think to get rid of him was by pretending such exhaustion that she could not stay awake another second, even though it was just after lunch, New York time. And then she found she had talked herself into it.

So she did go to sleep. And woke up before midnight with the chance for any more sleep gone. And what was there to do with the eleven hours before the morning session would begin?

A letter to Ahmed, of course. A few hours with English irregular verbs. Another hour or so listening to the tapes she had just made, to check her accent. But then she was tired and fretful. What she needed most was a walk from her apartment past the university into the fresh morning air of the park, but that was ten thousand kilometers away in Sofia. In New York you did not go walking in the fresh morning air. And so she had turned up for duty in the translators' booth feeling as though a hard day's work was already behind her, and her head throbbing and pounding in two different rhythms, one in each temple— Her mind had wandered.

She forced it back. It was Sir Tam asking for the floor now, and she had to put his words into Bulgarian.

His face was purple-red and he was shouting. With one half of her brain Nan wondered at that, while the other half was automatically processing his words. So much passion about such little fish! Not even fish. They were some sort of crustacean, weren't they? To Nan, "krill" was something that old-fashioned peasant grannies stirred into their stews to give them body. It came as a grayish-white, powdery substance that you bought in jars labeled "fish protein concentrate." You knew that it was good for you, but you didn't like to think about what organs and oddities were ground up to make it. In food-rich Bulgaria, nobody grew excited about the stuff.

But Sir Tam was excited. The Fuel Bloc needed it desperately, he shouted. Had to have it! Was entitled to it, by all the laws of civilized humanity! The Fuel Bloc already possessed the fleets of long-range factory ships that could seine the cold Antarctic Ocean. He quoted *Pacem in Maris* and the British-Portuguese Treaty of A.D. 1242. The tiny bodies of the creatures that made up the krill, he declared, were absolutely essential to British agriculture, being the very best kind of fertilizer for their crops.

At which the Uruguayan delegate interrupted, snarling, "Agriculture! You are using the essential protein to feed to animals."

"Of course," Sir Tam replied stoutly. "We are not blessed with the advantages given your country, Señor Corrubias. We do not have immense plains on which our cattle can graze. In order to feed them

properly, we must have imports—"

Someone in the American delegation laughed out loud, not a pleasant laugh, and the Uruguayan drummed on his desk derisively. "So it is cattle you feed, Sir Gulsmitt? But we have it on the evidence of your own Ministry of Health that you give the krill to your cats and budgies! Do you then make minced kitten patties, perhaps? Or fresh chops of parakeet?"

Sir Tam looked long-sufferingly at the President Pro Tem. "Sir, I must ask the courtesy of the floor."

The President was a spare Ghanaian who had not once glanced toward any speaker. He did not do so now. His eyes stayed on the letters he was signing, one by one, as his secretary put them before him. He said, "I would request of the delegate from Uruguay that he reserve his remarks until the delegate from the United Kingdom has concluded."

Sir Tam beamed graciously. "Thank you. In any case, I am almost finished. Of course, some part of our imports of krill do find their way into pet food, some part into protein additives for the justly famous British beef, some part into fertilizer to help us grow the vital foods that nature has otherwise denied us. Is that a matter for this body? I think not. What is of concern is the behavior of member states in their conduct in world affairs. We infringe no international treaty by continuing in the long British tradition of the sea, in harvesting what is freely available to all in international waters, and of course in making suitable use of

those pelagic areas which, by existing treaties freely arrived at by the member states, have long been reserved to us. But even this is not relevant to the motion before us today! That motion, I remind you, relates only to the proposal for a United Nations peacekeeping team to supervise the Antarctic fisheries. 'Peacekeeping,' my dear fellow delegates. A team to keep the peace. And therefore our position is clear. No such team is needed. The peace has been kept. There have been no incidents. There certainly will be none of our making. The United Nations has better things to do than to seek solutions for problems that do not exist."

And he sat down, managing to do so with a bow to the President Pro Tem, a sardonic grin for the Uruguayan and, yes, even a wink for Ana, up in the translator's booth! She shook her head in distress at this frivolous-minded person. But perhaps he was serious after all, for he was already writing something on a scrap of paper and beckoning a page, even as the Ghanaian finished signing his letters, slapped his portfolio shut, glanced at the clock, and managed not to catch the Uruguayan delegate's eye as he said, "I am informed that the address of the next delegate may occupy a substantial period of time. Since it is now four, I suggest we recess this debate until ten o'clock tomorrow morning."

A buzz rose up from the floor. Nan leaned back for a long moment, massaging her temples, before she stood up and allowed herself to contemplate the next half hour: A quick meal, a bath, and

then a lovely long sleep—

No. It was not to be. As she opened the door to the booth, the page dashed up, out of breath, and handed her the note from Sir Tam. It said:

Absolutely essential you attend the party in the DVL, and that I have the pleasure of escorting you.

So there was no rest, no rest. She might have refused the invitation. But Sir Tam had taken the precaution of telling the head of the Bulgarian mission to the United Nations about it, and she was no sooner in her room than he was on the phone insisting she go.

She bathed quickly and dressed in what she guessed might be appropriate, then trotted back across the street from her hotel to the great quaint oblong building, so unlike its newer and fortress-like neighbors. Her head was pounding all the way. Diffidently she whispered her name to the guard at the Distinguished Visitors Lounge. He consulted a list, smiled frostily, and let her in.

What a tumult! How much smoke, and what odors of food and drinks! And there was Sir Tam, to be sure, tiny bouquet of flowers in one hand, the other hand on the shoulder of a plump, dark, grinning man whom Nan did not at once recognize but who was the very Uruguayan with whom Sir Tam had been exchanging insults an hour before.

"Nan! Ho, Nan! Over here!" He was beckoning her to him. She could not think of a reason for refusing, and knew before it happened that Gulsmitt would be *touching* her

again. And it happened just that way. The flowers turned out to be a bouquet of parma violets, outrageously out of season and, of course, for her. Gulsmit insisted on pinning the corsage on her demure bodice himself, taking much more time over it than was necessary, while the others in his little conversational group jovially pretended not to notice.

It angered Nan that the Scot should put himself on such terms of evident intimacy. Especially in this hyperactive atmosphere, where people who had been posturing threat gestures at each other all day were now laughing and mingling and drinking together. Not only that. Every person in this little group was from a rival bloc. What would the head of her delegation say? Sir Tam and the Saudi were Power. The Uruguayans were People. So were the two jolly Chinese women in their spike-heeled shoes and neo-Mao jackets of silk brocade and metal thread. "You'll never guess, Nan," grinned Sir Tam, after introducing her, "what our friends have up their sleeves for tomorrow. Tell her, Liao-tsen."

The older of the Chinese women laid her hand on Ana's arm, smiling. Clearly she had been drinking a great deal. Her consonants were fuzzy, but she said comprehensibly enough: "The People's Republic of Bengal will put forward an emergency resolution. It is a very pretty resolution, Miss Dimitrova. All about 'the alleged multinational expedition of the Food Exporting Powers' and their 'acts of violence against the natives of Son of Kung.'"



"Violence? What is this about violence?" demanded Nan, startled and suddenly fearful. If there were fighting on Kungson—If Ahmed found himself in the middle of a war—

"That's the funny part, dear girl," chuckled Sir Tam. "It seems your friend God's little junket has begun shooting down harmless balloonists. But not to worry. I don't think it's going to pass. It's not a party matter, is it, Senor Corrubias?"

The Uruguayan shrugged. "There has been no official consultation among the people's Republics, that is true."

"And unofficial?" Gulsmitt probed.

Corrubias glanced at the elder Chinese woman, who nodded permission, and said, "I can tell you my personal opinion, and that is that the acts of violence we have heard described are not of much importance. Can one really get upset about rubber jack-o'-lanterns floating around in the sky?"

"There is also the matter of the underground race," said the Chinese woman. She took another sip of her drink, looking merrily mysterious over the top of it at Sir Tam, before going on comfortably, "But that too— Well. A few burrows broken into, that's all. After all, how can we be sure that the creatures who inhabit them are indeed intelligent? We would not object to a Nebraska farmer, for example, opening a mole run as he plowed his corn paddies."

"One might also," said Ana boldly, surprising herself at the harshness of her voice, "speak of

the crustacean race which has suffered some casualties." But Sir Tam stopped her by a gentle pressure on the shoulder. She did not protest. She had suddenly realized that it was Ahmed's group that had caused those casualties, about which she knew so worryingly little.

"I would really enjoy watching you two fight it out," said Sir Tam, laughing to take the menace out of his words. But Nan wondered if he didn't really mean it. She also wondered why he was so carefully and publicly possessive of her, arm around her shoulder, hovering over her drink and refilling it from every passing tray. Surely all these foreign people would suppose they had been in bed together! She blushed at the thought. It would have been bad enough to be guilty of an immoral dalliance, like any common tart, and to have it known. But she was not even guilty! The name without the game, how awful! Why would Sir Tam go out of his way to create such an impression? Could it be that the lax morality of the Fuel people was such that he valued the appearance of sexual adventure as much as the relationship itself? Was he trying to show that he was still sexually potent? And what sort of person was she living among here?

"Please excuse me for a moment," she said, glancing about as though looking for a woman's w.c. But as soon as she was well away from Sir Tam, she circled around the white-paneled room to the buffet tables. At least she would bring up her blood sugar. Perhaps that would relieve the headaches and the exhaustion, and then she would

think of a way to relieve the pressure from Sir Tam.

The table would have been lavish even in Sofia! But was it not the Tibetans who were giving this party? And why did they feel obliged to spread so wasteful a display of food? Caviar which certainly did not come from the Himalayas. Delicate fruit ices that surely were unknown in their sparse, high valleys. Patés in the original wooden boxes from France. And look what they had done! The centerpieces were carved replicas of the races of Kungson! A balloonist, half a meter thick, in butter! A crustacean carved from what looked like strawberry sherbet! A long, almost ratlike creature—was it a burrower?—made from foie-gras! And there standing next to her was a distinguished looking gray-haired man who was directing a pale-haired younger man in filling a plate from the display. A spoonful of the burrower, a few slices of some sort of meat, a croissant, a scoop from the balloonist to butter the roll. He caught her eye and smiled pleasantly without speaking.

It was all incredibly ostentatious. It quite took Ana's appetite away. She looked away from the food and saw Sir Tam across the room, eyes on her. Strangely, he nodded encouragement and pointed—to whom? To the graying tall man next to her?

She looked more carefully. Had they ever met? No. But he had a face she seemed to know. From a photograph, she thought; but a photograph that had meant something to her.

She turned to speak to him, and

the pale-haired other man was suddenly between them, polite but in a state of readiness. For what? Did they think she was an assassin?

Then she remembered where she had seen the face. "You're Mr. Godfrey Menninger," she said.

His expression was inquiring. "Yes?"

"We've never met, but I've seen your picture in a newspaper. With your daughter. I'm Ana Dimitrova, and I met your daughter a few months ago in Sofia."

"Of course you did! The angel of rescue. It's all right, Teddy," he said to the younger man, who stepped back and began collecting silverware for Menninger's plate. "How nice to meet you at last, Ana. Margie's here somewhere. Not near the food, poor thing. She has her mother's metabolism. She can't even look at a layout like this without putting on a kilo. Let's go find her so you can say hello."

Captain Menninger was sipping her Perrier water and allowing a fifty-year-old Japanese attache to think he was making headway against her defenses when she heard her father's voice behind her. "Margie, dear. A surprise for you. You remember Ana Dimitrova?"

"No." Marge studied the woman carefully, not competitively, but in the manner of someone trying to learn a terrain from a map. Then the card file in her head clicked over. "Yes," she corrected herself. "The Bulgarian woman. How nice to see you again."

It was not anything of the kind, and she intended the Bulgarian bint to understand that. On the other

hand, Margie had no particular wish to make an enemy of her either. There might be a time when her connection with that Pak she was screwing—Dulla? Yes. Ahmed Dulla, member of the first Peeps expedition to Klong—could be a useful line to pursue. So she turned to the Japanese and said:

"Tetsu, I'd like you to meet Nan Dimitrova. She was such a help to me in Bulgaria. You know how foolish I am about making jokes, I just can't help this mouth of mine, it says things that get me into the most terrible trouble. And so, of course, I said something ridiculously awful. Political, you know. It could have had really sticky consequences. And along came Nan, total stranger, just a good person, and got me out of it. How is that nice young man you were with, Nan?"

"Ahmed is on Kungson," said Nan. She was unwilling to give offense, but she was not obliged to like this plump blonde's nasty little put-down games.

"Is he! Why, that's a coincidence. You remember Dr. Dalehouse, of course? He's there too. Perhaps they'll meet." She saw that her father's aide had just signaled something to him, and added, "Daddy, you're looking worried. Am I saying something awful again?"

Godfrey Menninger smiled. "What I'm worried about is that if I'm going to give you a lift to Boston, it's time we were on our way. You do remember you have a date at M.I.T. tonight?"

"Oh, dear. I'd forgotten." Wholly untrue; Margie had not for-

gotten the time of her date, which was the following morning, and she had no doubt that her father had not forgotten either.

"Also," he went on, "you'll be sneezing and scratching if we stay here much longer. Or had you also forgotten that you are allergic to flowers?"

Margie had never in her life been allergic to anything, but she said, "You do take such good care of me, Daddy. Nan, I'm sorry this was so short, but it's really nice seeing you again. And, Tetsu, don't be a stranger next time you're in Houston. Stop by and say hello." The Japanese hissed and bowed. Of course, Margie reflected, she could be out of town if he ever did happen to show up in Houston. Not that that mattered. She had already accomplished her objective. Past a certain age, even going to bed with a man did not give you quite as firm a grip on his emotions as communicating the impression that you certainly would like to, if you ever got the chance.

In her father's car, with the bodyguard-aide sitting in front, she said, "Now what was that all about, poppa?"

"Maybe your little Bulgarian friend isn't quite as much of a country girl as she seems. Teddy swept her as a matter of routine. There was a microphone in her corsage."

"Her? Bugged? That's a crock!"

"That's a fact," he corrected. "Maybe her delegation put it on her, who knows? That place was full of sharks. It could have been anyone of them. And speaking of sharks—"

"You want to know what I

picked up," she said, nodding, and told him what the Japanese had said about the Bengali resolution.

He leaned back in the seat. "Just the usual U.N. Mischief Night, I'd say. You turn over my garbage can, I throw a dead cat on your roof. Are they going to press it?"

"He didn't say, poppa. He didn't seem to take it very seriously."

Her father rubbed the spot below his navel thoughtfully. "Of course, with the Peeps you never know. Heir-of-Mao has an investment in Klong. The Bengalis wouldn't be starting anything they didn't clear with the Forbidden City."

Margie's hair prickled erect at the back of her neck. "Are you saying I should worry? I don't want my mission withdrawn!"

"Oh, no, no chance of that, honey. Relax, will you? You're too much like your old lady. She never did learn to swing with the action. When the P.L.O. kidnapped you, I thought she'd have a nervous breakdown."

"She was scared shitless, poppa. And you never turned a hair." Not even, she thought, when your own three-year-old daughter was bawling into the jetliner's radio.

"But I knew you were going to be all right, honey. I really did."

"Well, I'm not bringing that up again, ol' buddy." Margie folded her hands in her lap and stared out the window. Between the U.N. complex and the airport there was no building, no street, that Margie had not seen a dozen times before. She was not really seeing them now. But they helped spur and clarify her thoughts, the long tandem buses hobbling down the slow

lanes, the apartment dwellers walking their dogs, school kids, stores, police on their tricycles, sidewalk vendors with their hand-made jewelry and pocket computers. Thomas Jefferson might have looked out of his stagecoach as he returned to Monticello at the slaves weeding his crops in just the same detached but proprietary way.

She said slowly, "Listen, poppa. I want to get our mission reinforced. Now."

"What's the hurry?"

"I don't know, but there's a hurry. I want it done before the Peeps and the Greasies cut us off at the roots, or get enough of their own people up there to own Kungson. I want us there first and biggest, because I want it all."

"Shit, honey. Didn't they teach you about priorities at the Point? There's the krill business, and the mid-Atlantic Ridge, and the Greasies threatening to raise their prices again—do you have any idea how tough all this is? I've only got one stack, and there's only room for one thing at the top of it."

"No, poppa, I don't want to be told how hard it is. Don't you understand this is a whole planet?"

"Of course I do, but—"

"No. No buts. I guess you don't really understand what having a whole planet to play with means. For us, poppa, all for us. To start from scratch with. To develop in a systematic manner. Find all the fossil fuels, develop them in a rational way. Locate the cities where they don't destroy arable land. Plant crops where they won't damage the soil. Develop industry where it's most convenient. Plan the popula-

tion. Let it grow as it is needed, but not to where you have a surplus: good, strong, self-reliant people. American people, poppa. Maybe the place stinks now, but give it a hundred years and you'd rather be there than here, I promise. *And I want it.*"

Godfrey Menninger sighed, looking in love and in some awe at the oldest and most troublesome of his children. "You're worse than your mother ever was," he said ruefully. "Well, I hear what you say. The Poles owe us one. I'll see what I can do."

* * *

TechTowTwo sprawled over the bank of the Charles River, more than twice the cubage of all the old brick buildings put together. There were no classrooms in Tech Tower Two. There was no administration, either. It was all for research, from the computer storage in the sub-basements to the solar-radiation experiments that decorated the roof with saucers and bow-ties.

The Massachusetts Institute of Technology had a long tradition of involvement with space exploration, going back even before there was any. Or any that did not take place on a printed page. As early as the 1950s there had been a design class whose entire curriculum revolved around the creation of products for export to the inhabitants of the third planet of the star Arcturus. The fact that there was no known planet of Arcturus, let alone inhabitants of it, did not disturb either teacher or students. Techpersons were used to unhinging their imagi-

nations on demand. In the Cambridge community that centered around M.I.T., Harvard, the Garden Street observatories and all the wonderlands of Route 128, there had been designers of interstellar spacecraft before the first Sputnik went into orbit, anatomists of extraterrestrials when there was no proof of life anywhere off the surface of the Earth, and specialists in interplanetary communications before anyone was on the other end of the line. Margie Menninger had taken six months of graduate studies there, dashing from Tech to Harvard. She had been careful to keep her contacts bright.

The woman Margie wanted to see was a former president of the MIS-FITS and thus would have been a power in the Tech world even if she had not also held the title of Assistant Dean of the College. She had arranged a breakfast meeting at Margie's request, and had turned out five department heads on order.

The Dean introduced them around the table and said, "Make it good now, Margie. Department heads aren't crazy about getting up so early in the morning."

Margie sampled her scrambled eggs. "For this kind of food I don't blame them," she said, putting down her fork. "Let me get right to it. I have about ten minutes' worth of holos of the autochthones of Son of Kung, alias Klong. No sound. Just visible." She leaned back to the sideboard and snapped a switch, and the first of the holographic pictures condensed out of a pinkish glow. "You've probably seen most of this stuff anyway," she said. "That's a Krippit. They are one of

the three intelligent, or anyway possibly intelligent, races on Klong, and the only one of the lot that is urban. In a moment you'll see some of their buildings. They're open at the top. Evidently the Kripit don't worry much about weather. Why they have buildings at all is anyone's guess, but they do. They would seem much the easiest of the three races to conduct trade with, but unfortunately the Peeps have a head start with them. No doubt we'll catch up."

The head of the design staff was a lean young black woman who had limited her breakfast to orange juice and black coffee, and was already through with it. "Catch up at what, Captain Menninger?" she asked.

Margie took her measure and refused combat. "For openers, Dr. Ravenel, I'd like to see your people create some trade goods. For all three races. They're all going to be our customers one of these days."

The economist took his eyes off the holo of a Kripit coracle to challenge Margie. "Customers implies two-way trade. What do you think these, ah, Klongans are going to have to sell us that's worth the trouble of shipping it all those light-years?"

Margie grinned. "I thought you'd never ask." She pulled an attache case off the floor and opened it on the table in front of her, pushing the plate of eggs out of the way. "So far," she said, "we don't exactly have any *manufactured* objects. But take a look at this." She passed around several ten-centimeter squares of a filmy, resilient substance. "That's the stuff the balloonists' hydrogen sacs are made

out of. It's really pretty special stuff—I mean, it holds gaseous H₂ with less than one per cent leakage in a twenty-four hour period. We could supply quite a lot of that, if there was a specialty market for it."

"Don't you have to kill a balloonist to get it?"

"Good question," Margie nodded to the economist, with a lying smile. "Actually, no. That is, there are other, non-sentient races with the same body structure, although this one is, I believe, from one of the sentients. How about a market? If I remember correctly, the Germans had to use the second stomach of the ox when they were building the *Hindenburg*."

"I see," said the economist gravely. "All we need to do is contact a few Zeppelin manufacturers." There was a general titter.

"I'm sure," said Margie steadily, "that you will have some better idea than that. Oh, and I ought to mention one thing. I brought my checkbook. There's a National Science Foundation grant for research and development that's waiting for someone to apply for it." And for that gift too, I thank you, poppa, she thought.

The economist had not become the head of a major department of the faculty without learning when to retreat. "I didn't mean to brush you off, Captain Menninger. This is actually a pretty exciting challenge. What else have you got for us?"

"Well, we have a number of samples that haven't been studied very carefully. Frankly, they aren't really supposed to be here. Camp Detrick doesn't know they're gone yet."

The group stirred. The Dean said quickly, "Margie, I think we all get the same picture when you mention Camp Detrick. Is there anything connected with biological warfare in this?"

"Certainly not! No, believe me, that doesn't come into it at all. I sometimes go out of channels, I admit, but what do you guess they'd do to me if I broke security on something like that?"

"Then why Camp Detrick?"

"Because these are alien organisms," Margie explained. "Except for the sample of balloonist tissue, you'll notice that every item I've got here is in a double-wrapped, heat-sealed container. The outside has been acid-washed and UV-sterilized. No, wait—" she added, grinning. Everybody at the table had begun looking at their fingertips, and there was a perceptible movement away from the samples of tissue on the table. "Those balloonist samples are okay. The rest, maybe not so okay. They've been pretty carefully gone over. There don't seem to be any pathogens or allergens. But naturally you'll want to use care in handling them."

"Thanks a lot, Captain," said the designer stiffly. "How can you be so sure about the tissue?"

"I ate some three days ago," she said. She had their full attention now, and swept on: "I should point out that the grant naturally includes whatever you need to insure safe handling. Now, this group are plant samples. They're photosynthetic, and their principal response is in the infrared range. Interesting for you agronomists? Right. And these over here are supposed to be art objects.

These come from the Kripit, the ones that looked like squashed cockroaches. The things are supposed to 'sing.' That is, if you're a Kripit and you rub them on your shell they make some interesting sounds. If you don't have a chitinous shell, you can use a credit card."

The woman from Design picked up one of them gingerly, peering at it through the transparent plastic. "You said you wanted us to develop some kind of trading goods?"

"I sure do." The last thing Margie pulled out of her dispatch case was a red-covered mimeographed document. The words MOST SECRET were dazzle-printed on the jacket. "As you can see, this is classified, but that's just military hangups. It will be turned over to the U.N. in about ten days anyway, or most of it will. It's the most comprehensive report we've been able to prepare on the three principal races of Klong."

All six of the faculty members at the table reached for it at once, but the Design woman was fastest. "Um," she said, flipping through it. "I've got a graduate student who would eat this up. Can I show it to him?"

"Better than that. Let's leave this copy, and the samples, with our friends, and let's you and I go talk to him."

Fifteen minutes later, Margie had succeeded in getting rid of the department head, and she and a slim, excitable young man named Walter Pinson were head to head. "Think you can handle it?" asked Margie.

"Yes! I mean, well, it's a big job—"

Margie put her hand on his arm. "I'm sure you can. I'd really appreciate it if you'd tell me how you plan to go about it, though."

Pinson thought for a moment. "Well, the first thing is to figure out what their needs are," he offered.

"That's fascinating! It must be pretty difficult. I would hardly know where to start. Offhand, I'd say their biggest need, all of them, is just staying alive. As you'll see, everything on the planet spends a lot of its time trying to eat everything else, including the other intelligent races."

"Cannibalism?"

"Well, I don't think you can call it that. They're different races. And there are a lot of other species that are trying to eat the intelligent ones."

"Predators," said Pinson, nodding. "Well, there's a starting point right there. Let's see. For the predators like the balloonists, for instance, anything that would set them on fire would help protect the sentients—of course," he added, frowning, "we'd have to make sure that these were used only to defend the sentients against lower forms of life."

"Of course!" said Margie, shocked. "We wouldn't want to give them weapons to start a war with!" She glanced at her watch. "I've got an idea, Walter. I didn't have much of a breakfast, and it's getting on toward lunch. Why don't you and I go where we can talk about these, ah, implements for self-protection?"

* * *

When she got back to her hotel, there was a taped message from her father: "To hear is to obey. Catch a news broadcast."

She turned on the bedside TV while she packed, hunting for an all-news station. She was rewarded with five minutes about the latest Boston political corruption scandals, and then an in-depth interview with the Red Sox's new designated hitter. But at last there was a recap of the top international story of the day:

"In a surprise move at the United Nations this morning, the top Polish delegate, Wladislas Przensky, announced that his government has accepted the challenge presented by the Bengali resolution. The Food powers have agreed to send out an investigatory commission, given broad powers to investigate the alleged cases of brutal treatment of native races on the planet whimsically called 'Klong,' or 'Son of Kung.' There will be no representatives of major powers such as the United States or the Soviet Union on the commission, which will be made up of U.N. peacekeeping officers from Poland itself, Brazil, Canada, Argentina and Bulgaria."

VIII

Danny Dalehouse reached out to grab the theodolite as it tipped in the soft ground. Morrissey grinned and apologized. "Must've lost my balance."

"Or else you're stoned again," said Dalehouse. He was angry—not just at Morrissey. In the candor of his heart he knew that most of his anger was at the fact that Kap-

pelyushnikov was flying and he was not. "Anyway," he went on, "you've knocked this run in the head. Next time why don't you just go sleep it off?"

They had all been freaked out by the stuff the balloonists had sprayed on them, and from time to time, for days afterward, all of them had recurring phases of lust and euphoria. Morrissey's were not only more intense, but Dalehouse was pretty sure the biochemist was still exposing himself. He had discovered that something in the semen or sperm of the male balloonists was highly hallucinogenic—better than that, was the long-sought-after true aphrodisiac, fabled in song and story. It wasn't Morrissey's fault that his researches put him clear out of it from time to time. But he shouldn't have insisted on helping with the theodolite readings.

Far overhead Kappelyushnikov's cluster of bright yellow balloons gyrated as the pilot experimented with controlling his altitude to take advantage of the winds at various levels. When he was finished tracking them, they would have basic information that could allow them to cruise the skies. Then Dalehouse's turn would come. But he was tired of waiting.

"Cappy," he said into the radio, "we've lost the readings. Might as well come on down."

Harriet was walking toward them as Kappelyushnikov's answer came through. It was in Russian; Harriet heard, and flinched irritably. That was in character. She had been a perfect bitch about the whole thing, Dalehouse thought. When they came back to normal after that first

incredible trip, she had flamed at him: "Animal! Don't you know you could have got me pregnant?" It had never occurred to him to ask. Nor had it occurred to her, at the time. It was no use reminding her that she had been as eager as he. She had retreated into her hard defiant-spinster shell. And ever since she had been ten times as upright as before, and fifty times as nasty to anyone who made sexual remarks in her presence or even, as with Kappelyushnikov just now, used some perfectly justifiable bad language.

"I've got some new tapes for you," Harriet sniffed.

"Any progress?"

"Certainly there's progress, Dalehouse. There's a definite grammar. I'll brief the whole camp on it after the next meal." She glanced up at Cappy, having a last fling with his balloon as half a dozen of the Klongan gasbags soared around him, and retreated.

A definite grammar.

Well, there was no use trying to hurry Harriet. *Preliminary Studies on a First Contact with Sub-technological Sentients* seemed very far away! Dalehouse counted up the score. It was not impressive. They had made no contact at all with the crablike things called Kripit, or with the burrowers. The gasbags had been hanging around quite a lot since the day they had showered the expedition with their milt. But they did not come close enough for the kind of contact Danny Dalehouse wanted. They bounced and swung hundreds of meters in the air most of the time, descending lower only when most

of the camp was away, or asleep. No doubt they had been trained to avoid ground-limited creatures through cons of predation. But it made it hard for Danny.

At least, with the gasbags in sight, rifle microphones had been able to capture quite a lot of their strident, singing dialogue—if dialogue was what it was. Harriet said she detected structure. Harriet said it was not bird songs, or cries of alarm. Harriet said she would teach him to speak to them. But what Harriet said was not always to be believed, Danny Dalehouse thought. The other thing he thought was that they needed a different translator. The split-brain operation facilitated language learning, but it had several drawbacks. It sometimes produced bad physical effects, including long-lasting pain. Once in a while it produced personality changes. And it didn't always work. A person who had no gift for languages to begin with came out of surgery still lacking the gift. In Harriet's case, Danny would have guessed all three were true.

They had transmitted all the tapes to Earth anyway. Sooner or later the big semantic computers at Johns Hopkins and Texas A&M would be checking in, and Harriet's skills, or lack of them, would stop mattering so much.

What Danny needed, or at least what Danny wanted, so badly he could taste it, was to be up there in the sky with one of the gasbags, one on one, learning a language in the good old-fashioned way. Anything else was a compromise. They'd tried everything within their resources. Free-floating instru-

mented balloons with sensors programmed to respond to the signatures of life; wolf traps for the Krinpit; buried microphones for the burrowers; the rifle mikes and the zoom-lensed cameras for the gasbags. They had kilometers of tape, with pictures and sounds of all manner of jumping, crawling, wriggling things, and hardly in all the endless hours as much as ten minutes that was any use to Danny Dalehouse.

Still, something had been accomplished. Enough for him to have composed a couple of reports to go back to Earth. Enough even for his jealous colleagues at M.S.U. and the Double-A-L to pore over eagerly, even if not enough to satisfy Danny. It was still learning, even if much of it was negative.

The first thing to perish was the pretty fable of three independent intelligent races living in some sort of beneficent cooperation and harmony. There was no cooperation. At least, they had seen no signs of that, and many to the contrary. The burrowers seemed never to interact with the others at all. The gasbags and the Krinpit did, but not in any cooperative or harmonious way. The balloonists never touched ground, as far as Danny had seen, or at least not on purpose. There were at least a dozen species that enjoyed eating balloonists when they could catch them, sleek brown creatures that looked a little like stub-winged bats, froglike leapers, smaller arthropods than the Krinpit—not least of them, the Krinpit themselves. If a gasbag ever drifted low enough for one of them to reach it, it was dead. So the en-

tire lives of the balloonists, from spawn to fodder, were spent in the air, and their ultimate burial was always in the digestive tract of some ground-bound race; so tawdry a fate for so pretty a species!

* * *

Kappelyushnikov was coming in, low and fast, tossed by the low-level winds. He pulled the ripcord on his balloon at five meters and dropped like a stone, wriggling out of the harness to fall free. He tumbled over and over as he landed, then got up, rubbing himself, and ran to catch the deflated balloon cluster as it scudded before the breeze.

Danny winced, contemplating his own first flight. The last little bit of ballooning was going to be the hardest. He turned to help Cappy pick up the fabric, and a rifle-shot next to his head made him duck and swear.

He spun around, furious. "What the hell are you up to, Morrissey?"

The biochemist put the rifle at shoulder-arms and saluted the tumbling form of one of the hovering gasbags. "Just harvesting another specimen, Danny," he said cheerfully. He had judged height and wind-drift with precision, and the collapsed bag was dropping almost at their feet. "Ah, shit," he said in disgust. "Another female."

"Really?" said Danny, staring at what looked like an immense erection. "Are you sure."

"Fooled me too," Morrissey grinned. "No, the ones with the schlongs aren't the males. They

aren't schlongs. I mean, they aren't penises. These folks don't make love like you and I, Danny. The females sort of squirt their eggs out to float around in the air, and then the boys come out and whack off onto them."

"When did you find all that out?" Dalehouse was annoyed; the rule of the expedition was that each of them shared discoveries as soon as they were made.

"When you were bugged at me for being stoned out of my mind," Morrissey said. "I think it has to do with the way they generate their hydrogen. Solar flares seem to be involved. So when they saw our lights, they thought it was a flare—and that's when they spawned. Only we happened to be underneath and so we got sprayed with, uh, with—"

"I know what we got sprayed with," Dalehouse said.

"Yeah! You know, Danny, when I took up this career, they made dissecting specimens sound pretty tacky—but every time I go near one of the males' sex glands, I get high. I'm beginning to like this line of work."

"Do you have to kill them all off to do it, though? You'll chase the flock away. Then how am I going to make contact?"

Morrissey grinned. He didn't answer. He just pointed aloft. Dalehouse, in justice, had to concede the unspoken point. Whatever emotions the gasbags had, fear did not seem to be among them. Morrissey had shot down nearly a dozen of them, but ever since the first contact, the swarm had stayed almost always within sight. Perhaps it

was the lights that attracted them. In the permanent Klongan twilight, there was no such thing as "day." The camp had opted to create one, marked by turning on the whole bank of floodlights at an arbitrary "dawn" and turning them off again twelve clock hours later. One light always stayed on. To keep off predators, they told themselves, but in truth it was to keep out the primordially threatening dark.

Morrissey picked up the balloonist. It was still alive, its wrinkled features moving soundlessly. Once down, they never uttered a sound—because, Morrissey said, the hydrogen that gave them voice was lost when their bags were punctured. But they kept on *trying*. The first one they had shot down had lived for more than forty hours. It had crept all around the camp, dragging its gray and wrinkled bag, and it had seemed in pain all of that time. Dalehouse had been glad when it died at last, was glad now when Morrissey plunged the new one into a killer bag for return to Earth.

Kappelyushnikov limped up to them, rubbing his buttocks. "Is always a martyr, first pioneer of flight," he grumbled. "So, Danny Dalehouse. You want go up now?"

An electric shock hit Danny. "You mean *now*?"

"Sure, why not? Wind isn't bad. I go with, soon as two balloons fill."

* * *

It took longer than Dalehouse would have thought possible for the little pump to fill two batches of

balloons big enough for human passengers—especially since the pump was a hastily rigged non-sparking compressor that leaked as much gas as it squeezed into the bags. Dalehouse tried to eat, tried to nap, tried to interest himself in other projects, and kept coming back to gaze at the tethered clusters of bags, quietly swelling with hydrogen, constrained by the cord netting that surrounded them.

The weather had taken a turn for the worse. Clouds covered the sky from horizon to horizon, but Kappelyushnikov was stubbornly optimistic. "Clouds will blow away. Is positive skies will be clear." When the first lightening—it was actually a pinkening—of sky began to show, he said decisively: "Is okay now. Strap in, Danny."

Mistrustfully, Dalehouse buckled himself into the harness. He was a taller but lighter man than the Russian, and Kappelyushnikov grumbled to himself as he valved off surplus hydrogen. "Otherwise," he explained, "you go back to State of Michigan, East Lansing, *shwoosh!* But next time, not so much wasting gas."

The harness had a quick-release latch at the shoulders, and Dalehouse touched it experimentally. "No, no!" screamed Kappelyushnikov. "You want to pull when you are up two hundred meters, fine, pull! Is your neck. But don't waste gas for nothing." He guided Danny's hands to the two crucial cords. "Is not clamjet, you understand? Is free balloon. Clamjet uses lift to save fuel. Here is no fuel, only lift. Here you go where wind goes. You don't like direction,

you find different wind. Spill water ballast, you go up. Spill *sauerstoff*, you go down."

Dalehouse wriggled in the harness. It was not going to be very much like sailplaning over the eastern shore of Lake Michigan, where there was always a west wind to bounce off the bluffs and keep a glider aloft for hours. But if the Russian could do it, he could do it. I hope, he added to himself, and said, "All right, I think I have the hang of it."

"So let's go," cried the Russian, grinning as he slipped into his own harness. He bent and picked up a fair-sized rock, gesturing to Danny to do the same. The other members of the expedition were standing back, but one of them handed Danny a rock and, at Kappelyushnikov's orders, they untethered the balloons.

Kappelyushnikov danced over toward Danny, like a diver stilting across a sea-bottom. He came as close as he could under the bulk of their balloons, peering into his face. "You are all right?" Danny nodded. "So drop the rock and we go!" Kappelyushnikov cried. And he cast his own rock away and began to float diagonally upward.

Dalehouse took a deep breath and followed his example, watching the Russian move upward.

Nothing seemed to happen. Danny did not feel any acceleration, only that his feet seemed to have gone abruptly numb, and there was no sensation of pressure on their bottoms. Because his eyes were on Kappelyushnikov, he neglected to look down until he was fifty meters in the air.

They were drifting south, along the coastline. Far above them and inland, over the purple hills that marked the edge of the fern forest, the extended swarm of balloonists was grazing on whatever tiny organisms they could find floating in the sky. Below and behind was the dwindling campsite. Danny was already higher than the nose of their return rocket, the tallest object in it. Off to his left was the sea itself, and a couple of islands in the muddy waters, covered with many-trunked trees.

He wrenched his attention away from sightseeing; Kappelyushnikov was shouting at him. "What?" Dalehouse bellowed. The gap had widened; Cappy was now forty meters above him, and moving inland, evidently in a different air layer.

"Drop . . . little . . . water!" shouted the Russian.

Dalehouse nodded and reached tentatively for the valve cord. He pulled at it with a light touch.

Nothing happened.

He pulled again, harder. Half a liter of ballast sprayed out of the tank, drenching him. Danny had not realized that the passenger was directly under the ballast tank, and, gasping, vowed to change that element of design before he went up again.

But he was flying!

Not easily. Not with grace. Not even with the clumsy control that Kappelyushnikov had taught himself. He spent the first hour chasing Cappy across the sky. It was like one of the fun-house games where you and your girl are on different rotating circles of a ride, when

neither of you can take a step except to change from one spinning disk to another. He never caught the Russian, though Kappelyushnikov did all he could to make capture easy. Not that first time.

But—flying! It was exactly the dream he had always had, the dream everyone has had. The total conquest of the air. No jets. No wings. No engines. Just gently swimming through the atmospheric ocean, with no more effort than floating in a salt-water bay.

He reveled in it, and as time went on—not in the first flight, or the tenth; but the supply of hydrogen was limitless, if slow in coming, and he made as many flights as he could—he began to acquire some skill.

And the problem of reaching the gasbags turned out to be no problem at all.

He didn't have to seek them out. They were far more skilled at flying than he, and they came to him, bobbing around like great jack-o'-lanterns with hideous ticklike faces, peering inquisitively into his own face and singing, singing, oh! how they sang.

* * *

For the next week, or what passed on Klong for a week, Dalehouse spent every minute he could in the air. The life of the camp went on almost without him. Even Kappelyushnikov was more earthbound than he. There was nothing to hold Dalehouse there, and he found himself almost a stranger when he landed, slept, relieved bladder and bowels, ate, filled his

balloons and soared again. Harriet snapped at him for demanding more than she could handle in translation. The camp commander complained bitterly at the waste of power in generating hydrogen. Jim Morrissey pleaded for time and help in collecting and studying the other species. Even Cappy was surly about the wear and tear on his balloons. Danny didn't care. In the skies of Klong he was alive. He progressed from feckless interloper to skilled aeronaut; from stranger to, almost, one of the great drifting swarm. He began to be able to exchange at least rudimentary ideas with some of the gasbags, especially the biggest of them—two meters across, with a pattern that looked almost like a tartan; Danny named him "Bonny Prince Charlie," lacking any clue as to what the gasbag called itself. *Himself*. Danny began to think of him as almost a friend. If it had not been for his physical needs, and one other thing, Dalehouse would hardly have bothered returning to the camp at all.

The one other thing was Harriet.

He could not do without her help in translation. It wasn't enough. He was convinced a lot of it was wrong. But it was all he had in the endeavor to communicate with these beautiful and monstrous creatures of the air. He raged to the rest of the encampment, and insisted on his complaints being relayed to Earth; he insulted her almost to the point of tears—from eyes that he would have sworn had never felt them before. It was not enough to suit him . . . but voyage by voyage, hour by hour, some sort of com-

munication began to build up.

You never knew what part of your learning was going to be useful. Those long sessions of Chomsky and transactional grammar, the critiques of Lorenz and Dart, the semesters on territoriality and mating rites—none of them seemed very helpful in the skies of Klong. But he blessed every hour of sailplaning, and every evening with his local barbershop quartet. The language of the gasbags was music. Not even Mandarin made such demands on pitch and tonality as their songs. Even before he knew any words, he found himself chiming in their chorus, and they responded to it with, if not exactly welcome, at least curiosity. The big plaid one even learned to sing Danny Dalehouse's name, as well as he could with a soundproducing mechanism that was deficient in such basic phonemes as the fricative.

Danny learned that some of their songs were not unlike terrestrial birdcalls: there was one for food, and several for danger. There seemed to be three separate kinds of danger, one for danger from the ground and two for dangers, but evidently different kinds of dangers, from the air. One of the terms sounded almost Hawaiian, with its liquids and glottal stops; that seemed to belong to a kind of feral gasbag, a shark of the air, that appeared to be their most dangerous natural enemy.

The other—Dalehouse could not be sure, and Harriet was not much help, but it appeared to relate to danger from *above* the air; and not just danger, but that kind of special

macho risktaking danger that involved mortal peril, even death, but was infinitely attractive for reasons he could not perceive. He puzzled over that for hours, making Harriet's life a living hell. On that point, no solution. But the tapes went back to Earth, and the computer matches began to come back, and Harriet was able to construct sentences for him to say. He sang, "I am friend," and, heart-stoppingly, the great cross-hatched gasbag he called Charlie responded with a whole song:

"You are, you are, you are friend!" And the whole chorus joined in.

The fickle Klongan weather cooperated for eight calendar days, and then the winds began to rise and the clouds rolled in.

When the winds blew, even the gasbags of the swarm had trouble keeping station with each other, and Danny Dalehouse was blown all over the sky. He tried to keep the camp in range; and because he did, so did the whole swarm. But in the effort they were widely separated. When he decided to give up at last, he called good-by and heard in response the song that seemed to mean "sky danger." Dalehouse repeated it; it seemed appropriate enough, considering the weather. But then he became conscious of a deep fluttering sound behind the whine of the winds. The sound of a helicopter.

Dalehouse abandoned the flock. climbed high enough to find a return wind, then jockeyed himself expertly down through the cross-breezes toward the camp. There it was, dropping through the frayed



bottom of a cloud: the Greasy cop-
ter, with a Union Jack on its tail
strut. So profligate of energy! Not
only did they ship that vast mass
through tachyon transit, at incredi-
ble cost, but they had shipped
enough fuel to allow the pilot to
take joyrides. And what was it car-
rying slung between its skids? Some
other kind of machine! Typical
Greasy oil-hoggery!

Danny swore disgustedly at the
wastefulness of the Greasies. With a
fraction of the kilocalories they
poured out in simple inefficiency
and carelessness, he could have had
a decent computer. Kap-
pelyushnikov could long since have
had his glider, Morrissey could
have had an outboard motor for his
boat, and thus a nearly complete
selection of marine samples by
now. There was something wrong

in a world that let a handful of na-
tions burn off energy so recklessly
simply because they happened to be
sitting on its sources. When it was
gone, they would be as threadbare
as the Peruvians or the Paks, sure.
But there was no comfort in that.
Their downfall would be the
world's downfall—

Or at least *that* world's downfall.
Maybe something could be worked
out for *this* one. Planning. Thought.
Preparation ahead of time. Control
of growth, so that scarce resources
would not be pissed away irrevoca-
bly on foolishness. A fair division
of Klong's treasures, so that no na-
tion, and no individual could enrich
himself by starving others. An at-
tempt to insure equity to all—

Dalehouse's train of thought
snapped as he realized that he had
been daydreaming. The winds had

carried him farther than he intended, almost out over the sea. He vented hydrogen frantically, and came down almost in the water, falling fast. He picked himself up, and watched the ripped cases of the balloons floating out of reach in the water. Cappy would be furious.

At least he wouldn't have to carry them on what looked like a long walk back up the shore to the camp, he thought. It was some consolation, but it didn't last long. Before he was halfway back, it began to rain.

* * *

And it rained. *And* it rained. It was no such ferocious wind-slamming storm as had hit them soon after the landing, but it lasted most tediously and angeringly long, far past the point where it was an incident, past the time it was an annoyance, to the point, and past the point, when it seemed they were all sentenced to fat, oily drops turning the ground into mud and the camp into a steam bath for all the miserable rest of their lives. There was no chance of ballooning. There were no native balloonists in sight anyway to follow. Kappelyushnikov grumpily seamed and filled new balloons in the hope of better times to come. Harriet Santori tongue-lashed everyone who came near her. Morrissey packed samples in his tent and pored over mysterious pictures and charts, coming out only to stare furiously at the rain and shake his head. Danny composed long tachtran messages to SERDCOM and the Double-A-L, demanding gifts for his gasbag friends. Krivitin

and Sparky Cerbo brewed up some kind of witches' brew from the native berries and got terribly drunk together, and then even more terribly sick as their bodies strove to defend themselves against the alien Klongan protein traces in the popsull. They very nearly died. They surely would have, exploded Alex Woodring, shaking with anger, if they had done any such moron's trick earlier; the first total vulnerability had dwindled to reactions that no longer brought death. Only protracted misery. Danny inherited the job of tending them and, at Harriet's angry insistence, of packaging samples of their various untidy emissions for Jim Morrissey to analyze.

Morrissey was crouched over his pictures and diagrams when Danny came in, and when his duty was explained to him, flatly refused it. "Cripes, Danny, I've got no equipment for that kind of thing. Throw those samples in the crapper, I don't want them."

"Harriet says we must know how serious the poisoning is."

"We already know that, man. They got real sick. But they didn't die."

"Harriet says you can at least analyze them."

"For what? I wouldn't know what to look for."

"Harriet says—"

"Oh, screw Harriet. 'Scuse me, Danny, I didn't mean to remind you of your, uh, indiscretions. Anyway, I've got something better for us to do, now that the rain's stopping."

"It hasn't stopped, Jim."

"It's slowing down. When it does stop, Boyne's going to be

coming around to collect the backhoe I borrowed from him. I want to use it first."

"For what?"

"For digging up some of our lightfingered friends." He pointed straight down at the floor of the tent. "The ones that swiped Harriet's radio."

"We already tried that."

"Yes, we did. We found out that the important thing is speed. They'll close up the tunnels faster than you'd believe, so we've got to get in, get moving and get to where they are before they have a chance to react. We'll never have a clear field to pick them up otherwise—unless," he added offhandedly, "we flooded the tunnels with cyanide first. Then we could take our time."

"Is that all you think of, killing?" Dalehouse flared.

"No, no. I wasn't suggesting it. I was *excluding* it. I know you don't like killing off our alien brothers."

Dalehouse took a deep breath. He had seen enough of the balloonists to stop thinking of them as preparations and learn to consider them, almost, people. The burrowers were still total unknowns to him, and probably rather distasteful—he thought of termites and maggots and all sorts of vile, crawling things when he thought of them. But he wasn't ready for genocide.

"So what were you suggesting?" he asked.

"I borrowed a backhoe from Boyne. I want to use it before he takes it back. The thing is, I think I know where to dig."

He gathered up a clump of the papers on the upended footlocker he

was using for a desk and handed them over. The sheets on top seemed to be a map, which meant nothing to Dalehouse, but underneath was a sheaf of photographs. He recognized them; they were aerial views of the area surrounding the camp. Some he had taken himself, others were undoubtedly Kapelyushnikov's.

"There's something wrong with them," he said. "The colors look funny. Why is this part blue?"

"It's false-color photography, Danny. That batch is in the infrared; the bluer the picture, the warmer the ground. Here, see these sort of pale streaks? They're two or three degrees warmer than what's on other side of them."

Dalehouse turned the pictures about in his hands, and then asked, "Why?"

"Well, see if you figure it out the same way I did. Look at the one under it, in orthodox color. You took that one. Turn it so it's oriented the same way as the false-color print—there. Do you see those clumps of orangey bushes? They seem to extend in almost straight lines. And those bright red ones? They are extensions of the same lines. The bushes are all the same plant; the difference is the bright red ones are dead. Well, doesn't it look to you like the pale lines in the false-color pictures match up with the lines of bushes in the ortho? And I've poked a probe down along some of those lines, and guess what I found?"

"Burrows?" Dalehouse hazarded.

"You're so damn smart," grumbled Morrissey. "All right, show me some real smarts. *Why* are those

plants and markings related to the burrows?"

Dalehouse put down the pictures patiently. "That I don't know. But I bet you're going to tell me."

"Well, no. Not for sure. But I can make a smart guess. I'd say digging out tunnels causes some sort of chemical change in the surface. Maybe it leaches out the nutrients selectively? And those plants happen to be the kind that survive best in that kind of soil? Or maybe the castings from the burrowers fertilize them, again selectively. Those are analogues from Earth: you can detect mole runs that way, and earthworms aerate the soil and make things grow better. This may be some wholly different process, but my bet is that that's the general idea."

He sat back on his folding camp stool and regarded Danny anxiously.

Dalehouse thought for a second, listening to the dwindling plop of raindrops on the tent roof. "You tell me more than I want to know, Jim, but I think I get your drift. You want me to help you dig them up. How are we going to do that fast enough? Especially in the kind of mud there is out there?"

"That's why I borrowed Boyne's backhoe. It's been in position ever since the rain began. I think the burrowers sense ground vibrations; I wanted them to get used to its being there before we started."

"Did you tell him what you wanted it for? I got the impression they were digging burrows themselves."

"So did I, and that's why I didn't tell him. I said we needed new

latrines, and by gosh we do. Some time or other. Anyway, it's right over the best-looking patch of bushes right now, ready to go. Are you with me?"

Danny thought wistfully of his airborne friends, so much more inviting than these rats or worms. But they were out of reach for the time being— "Sure," he said.

Morrissey grinned, relieved. "Well, that was the easy part. Now we come up against the tough bit: convincing Harriet to go along."

* * *

Harriet was every bit as tough as advertised. "You don't seriously *mean*," she began, "that you want to drag everybody out in a *down-pour* just for the sake of digging a few *holes*?"

"Come on, Harriet," said Morrissey, trying not to explode. "The rain's almost stopped."

"And if it has, there are a *thousand* more important things to do!"

"Will be fun, Gasha," Kapelyushnikov chipped in. "Digging for foxholes like landed oil-rich English country gentlemen! Excellent sport."

"And it isn't just a few holes," Morrissey added. "Look at the seismology traces. There are big things down there, chambers twenty meters long and more. Not just tunnels. Maybe cities."

Harriet said cuttingly, "Morrissey, if you wonder why none of us have any confidence in you, that's just the reason. You'll say any stupid thing that comes into your head. Cities! There are some indica-

tions of shafts and chambers, somewhat bigger than the tunnels directly under the surface, yes. But I would not call them—"

"All right, all right. They're not cities. Maybe they aren't even villages, but they're something. At the least, they are something like breeding chambers where they keep their young. Or store their food. Or, Christ, I don't know, maybe it's where they have ballet performances or play Bingo, what's the difference? Just because they're bigger, it follows that they're probably more important. It will be less likely, or at least harder, for them to seal them off."

He looked toward Alex Woodring, who coughed and said, "I think that's reasonable, Harriet. Don't you?"

She pursed her lips thoughtfully. "Reasonable? No, I certainly wouldn't call it *reasonable*. Of course, you're our leader, at least nominally, and if you think it wise to depart from the—"

"I do think it's a good idea, Harriet," Woodring said boldly.

"If you'll let me finish, please? I was saying, if you think we should depart from the agreement we all made that group decisions should be arrived at *unanimously*, not by a vote or some one person throwing his weight around, then I suppose I have nothing further to say."

"Gasha, dear," said Kappelyushnikov soothingly, "shut up, please? Tell us plan, Jim."

"You bet! First thing we do is open up as big a hole as we can with the backhoe. All of us are out there with shovels, and we jump in. What we want is specimens. We

grab what we see. We should take them pretty much by surprise and besides," he said, with some self-satisfaction, "two of us can carry these." He held up his camera. "They've got good bright strobes. I got that idea from Boyne, when we were drinking together; I think that's what they do, at the Greasies'. They go in with these things, partly to get pictures and mostly to dazzle them. While they're temporarily blinded, we can grab them easily."

Dalehouse put in, "Temporarily, Jim?"

"Well," Morrissey said reluctantly. "No, I'm not real sure about that part. Their eyes are probably pretty delicate—but hell, Danny, we don't even know if they have any eyes in the first place!"

"Then how do they get dazzled?"

"All right. But still, that's the way I want to do it. And we'll take walkie-talkies. If anything, uh, goes wrong—" He hesitated, and then started over. "If you should get disoriented or anything, you just dig up. You should be able to do that with your bare hands. If not, you just turn your walkie-talkie on. We might be unable to get voice communication from under the surface, but we know from the radio that got stolen that we can at least get carrier sound, so we'll RDF you and dig you out. That's if anything goes wrong."

Kappelyushnikov leaned forward and placed his hand on the biochemist's mouth. "Dear Jim," he said, "please don't encourage us any more, otherwise we all quit. Let's do this, no more talk."

Predictably, Harriet would have nothing to do with the venture, and she insisted that at least two of the men stay behind—"In case we have to dig you heroes out." But Sparky Cerbo volunteered to go in, and Alicia Dair claimed she could run the backhoe better than anyone else in the camp. So they had half a dozen in coveralls, headlamps, goggles and gloves ready to jump in when Morrissey signaled the digging to start.

He had been right about the mud; there wasn't any, except right around the main paths of the camp, where they had trodden the Klengan ground-cover to death. But the soil was saturated, and the backhoe threw as much moisture as it did dirt. In less than a minute it had broken through.

Morrissey swallowed, crossed himself and jumped into the hole. Alex Woodring followed, then Danny, then Kappelyushnikov, di Paolo, and Sparky Cerbo.

The plan was to break up into pairs, each couple to follow one tunnel. The trouble with the plan was that it was predicated on there being more than two directions to take. There weren't. The pit they dropped into was not much more than a meter broad. It smelled damp, and—and *bad*, Danny thought, like a stale cage of pet mice; and it was no more than a tunnel. Di Paolo jumped down onto Danny's ankle, and Sparky Cerbo, following, got him square in the middle of the back. They were all tangled together, cursing and grumbling, and if there was a bur-

rower within a kilometer that didn't know they were coming, that burrower, Danny thought, would have to be dead. "Quit screwing around!" yelled Morrissey over his shoulder. "Dalehouse! Sparky! You two follow me." Dalehouse got himself turned around in time to see Morrissey's hips and knees, outlined against the glow from his headlamp, moving away. The cross-section of the tunnel was more oval than round, shallower than it was broad; they couldn't quite move on hands and knees, but they could scramble well enough on thighs and elbows.

"See anything?" he called ahead.

"No. Shut up. Listen." Morrissey's voice was muffled, but Dalehouse could hear it well enough. Past it and through it he thought he heard something else. What? It was faint and hard to identify. squirrel-like squeals and rustlings, perhaps, and larger, deeper sounds from farther away. His own breath, the rubbing of his gear, the sounds the other made, all conspired to drown it out. But there was *something*.

A bright flare made him blink. It hurt his eyes. It came from Morrissey's strobe, up ahead. All Dalehouse got of it was what trickled back, not helped by the rough dirt walls, almost without reflection. In the other direction it must have been startling. Now he was sure he heard the squirrel-squeals, and they sounded anguished. As well they should, Danny realized, with a moment's empathy for the burrowers. What could light have meant to them, ever, but some predator breaking in, and death and de-

struction following?

He bumped into Morrissey's feet and stopped. Over his shoulder, Morrissey snarled. "The fuckers! They've blocked it."

"The tunnel?"

"Christ, yes. the tunnel! It's packed tight, too. How the hell could they do that so fast?"

Dalehouse had a moment's atavistic fear. Blocked! And in the other direction? He rolled onto his side, extinguished his light and peered back between his feet down the tunnel. Past Sparky's crouching form he could see, he was sure he could see, the reassuring dim red glow from the Klongan sky. Even so, he could feel the muscles at the back of his neck tensed up and painful with the ancient human terror of being buried alive, and he suddenly remembered that the direction they had taken was the one that went under the backhoe. What if its weight crushed the roof through and pinned them? "Ah, Jim," he called. "What do you think? Should we get back to the barn?"

Pause. Then, angrily, "Might as well, we're not doing any good here. Maybe the guys had better luck the other way."

But Cappy and the others were already outside, helping them out as they emerged. They had got only eight or nine meters into their tunnel before it was blocked; Dalehouse's group had gone more than twice as far. It came out the same in the end, though, Dalehouse reflected. Incredible their reactions could be so fast! No doubt they had been trained into them over endless Klongan millenia. Whatever the reason, it was not going to be easy

to collect a specimen, much less try to make contact. Danny thought of his airborne friends longingly; how much nicer to fly to make contact than to wiggle through the mud like a snake!

Kappelyushnikov was brushing him off; then, more lingeringly, doing the same for Sparky Cerbo. "Dearest girl," he said, "you are disgracefully filthy! Let us all go swim in lake, take our minds off troubles."

Good-naturedly the girl moved away from his hand. "Maybe we should see what Harriet wants first," she suggested. And, sure enough, Harriet was standing at the entrance to the headquarters tent, a hundred meters away, evidently waiting for them to come to her.

As they straggled up, she looked them up and down with distaste. "A total failure, I see," she said, nodding. "Of course, that was to be expected."

"Harriet," Jim Morrissey began dangerously.

She raised her hand. "It doesn't matter. Perhaps you'll be interested in what has happened while you were gone."

"Harriet, we were only gone twenty or thirty minutes!" Morrissey exploded.

"Nevertheless. First there was a tachtran signal. We're being reinforced, and so are the Peeps. Second—" She stepped aside to let them pass through into the tent. Inside, the others who had stayed behind were clustered, looking, Dalehouse thought, curiously self-satisfied. "I believe you wanted a specimen of those underground creatures? We found one, trying to

steal some of our supplies. Of course, it would have been easier if so many of you hadn't been wasting your time on foolishness, so you could have helped when we needed you—"

Kappelyushnikov bellowed. "Gasha! Get to point, right now! You caught a specimen for us?"

"Of course," she said. "We put him in one of Morrissey's cages. I was quite severely scratched doing it, but that's about what you can expect when—"

They didn't let her finish; they were all inside and staring.

The stale mouse-cage smell was a thousand times stronger, almost choking Danny Dalehouse, but there it was. It was nearly two meters long, tiny eyes set close together above its snout, squeezed tight closed in anguish. It was squealing softly—Danny almost would have said broken-heartedly—to itself. It was gnawing at the metal bars of the cage and simultaneously scrabbling at the plastic flooring with duckfoot-shaped claws. It was covered with a sort of dun-colored down, or short fur; it seemed to have at least six pairs of limbs, all stubby, all clawed, and all incredibly strong.

Whatever its teeth were made of, they were *hard*. One of the bars of the cage was almost gnawed through; and its squeals of pain never stopped.

IX

The swarm was half fledglings now, tiny balloonets that had just cast off their parachuting threads of silk and now struggled bravely to

keep up with the great five-meter adult spheres. In the constant chorus of the swarm, the fledglings' voices were as tiny as their gasbags. Their shrill peeping used only the least possible amount of hydrogen, to preserve their precarious lift balance against the few drops in their ballast bladders.

Charlie patrolled majestically through the swarm, driving the bulk of his body reprovingly against a cluster of infant balloonets that were singing against the swarm melody, rotating his eye-patches to scan the skies for *ha'aye'i*, listening to the counter-songs of praise and complaint from the other adults of the swarm and always, always, leading them as they sang. There was much praise, and much complaint. The praise he took for granted. To the complaint he attended with more care, ready either to remedy or rebuke. Three females sang despairingly of little ones who dropped their flying tails too soon, or who could not hold their hydrogen and so drifted helplessly down to the voracious world below. Another pealed a dirge of anger and sorrow, blaming the deformed fledglings on the Persons of the Middle Sun.

This was just; and Charlie led the swarm in a concurrence of sympathy and advice: "Never—" (*Never, never, never*, sang the chorus)—"never again must we breed near the new Suns."

The females chorused agreement, but some of the males sang in counterpoint: "But how can we know which is real Heaven-Danger and which is not? And where may we breed at all? The Persons of the

Three Suns are under all our air!"

Charlie's answering song was serene: "I will ask my friend of the Middle Sun. He will know." (*He will know, he will know*, chorused the swarm.)

But a male sang a dire question: "And when the swarming rapture is on us, will we remember?"

"Yes," sang Charlie. "We will remember, because we must." (*We must, we must.*)

That should have settled it. And yet, the song of the swarm was not at peace. Undertones buzzed and discorded against the dominant themes. Even Charlie's own song faltered now and then, and repeated itself when it should have burst into triumphant new themes. Currents were stirring under the surface of his mind. They never reached consciousness; if they had, no power could have kept him from expressing them in song. But they were there. Worries. Doubts. Puzzles. Who were these Persons of the Three Suns? Where had they come from? They seemed the same, as like as any swarms of balloonists. Yet Charlie's friend 'Anny 'Alehouse had explained that they were not the same.

First there had been the persons of the Small Sun. They had seemed no more than another species of devouring Earth-Danger creatures in the beginning, although they had created a tiny sun almost at once. But their camp was almost at the limit of Charlie's range and the swarm had not troubled themselves about those Persons.

Then there was the group of Charlie's friend; and, almost at once, the third group, the Persons

of the Big Sun. They were worrisome! Their sun was always shining brightly, brighter than the Heaven-Danger at its brightest. Since it was almost the deepest of Charlie's instincts to swarm in the direction of a bright light, it was actual pain to turn and swim away from the Big Sun. They had almost been trapped when the Persons first arrived—when all three of the parties of Persons of the Suns arrived—because each of them came roaring down through the air on a pillar of Sun-flame. But none had been close enough to cause them to swarm. By the time the flock had maneuvered near, the flames were gone and the lights were darkened. Then the Persons of the Big Sun had sent one of them up into the air in the great queer thing that fluttered and rattled; it was harder than the *ha'aye'i* Sky Danger, and even more deadly. Something about it drew balloonists into its swinging claws, and more than a dozen of Charlie's swarm had been ripped open and gone fluttering down to ground, helpless, despairing and silent. Now they avoided it in fear and sorrow. Two out of three of the groups of New Persons, and both to be avoided! The one because they killed, the other because they did not fly at all, were no more than any other Ground Danger, would not have been thought to be Persons at all—

Except for 'Anny 'Alehouse.

Charlie sang of his friend, who redeemed his whole race. 'Anny 'Alehouse and his sometimes companion, 'Appy: they were Persons! They flew as Persons flew, by the majesty and the grace of the air itself. It was a sad thing that even

their Middle Sun had flared like a true Heaven Danger and caused the flock to breed poorly. But it did not occur to Charlie to blame Morrissey's flare on Dalehouse or Kappelyushnikov; it did not occur to him to think of blame at all. When Kung flared, the balloonists bred. They could not help it. They did not try. They had never developed defenses against a false flare, lacking in the actinic radiation that helped them make their hydrogen and triggered their fertility. They had never needed any—until now. And they had no way to learn a defense.

The swarm was drifting toward a swelling cumulus cloud; Charlie swelled his singing sac and boomed out: "Hive up, my brothers!" (*Hive up, hive up*, came the answering chorus.) "Hive up, sisters and mates! Hive up, young and old! Watch for *ha'aye'i* in the wet shadows! Huddle the little ones close!"

Every member of the swarm was singing full-throatedly now as the swarm compacted, swimming into the ruddy-pink cottony edges of the cloud. They could see each other only as ghosts, except for the oldest and biggest males, whose luminous markings gave them more visibility. But they could hear the songs, and Charlie and the other senior males patrolled the periphery of the swarm. If *ha'aye'i* were there, the males could not defend the swarm—could not even defend themselves to any purpose. But they could sing warning, and then the swarm would scatter in all directions, so that only the slowest and weakest would be caught.

But this time they were lucky. There were no killer balloons in the cloud, and the swarm emerged intact. Charlie trumpeted out a song of thanksgiving as the flock entered clear air again. All joined. Cumulus clouds formed at the top of updrafts of warm air, and the *ha'aye'i* often sought them out to supplement their comparatively weak lift. There was always a price; what the *ha'aye'i* gained in speed and control, not to mention claws and jaws, they paid for in smaller lifting bags, so that for them it was always an effort to stay in the air. The *ha'aye'i* were sharks of the air. They never slept, never stopped moving; and were always hungry.

The swarm was drifting toward the heat pole. Charlie rotated his eye patches to catch clues of the movement of the air. He always knew what direction the winds blew on each level; he was taught by the movement of cloudlets, by the fluttering of dropped fledgling silk, most of all by a lifetime of experience, so that he did not have to think of how to capture a favorable wind, he *knew*, as surely as any New Yorker hurrying down Fifth Avenue knows the number of the next cross street. He did not want to stray too far from his friend of the Middle Sun, whom he had not seen for some time. He trumpeted for the swarm to rise a hundred meters. The other males took up his song, and from all the gas bags, great and small, drops of water ballast fell. There would be no trouble replacing it for the adults, who were naturally and automatically catching and swallowing the tiny misting of dew from their passage through the

cloud. The smaller ones made hard work of it. But they valiantly released swallowed gas into their bags, and the females watchfully butted the littlest ones higher. The swarm stayed together at the new level as its drift changed back toward the direction of the camp of the Middle Sun.

No *ha'aye'i* in sight. Plenty of water on their skins to lick off and swallow, part to hold as ballast, part to dissociate into the oxygen they metabolized and the hydrogen that gave them lift. Charlie was well content. It was good to be a balloonist! He returned to the song of thanksgiving.

They were nearing the edges of their territory, and another swarm bobbed high above them, a few kilometers away. Charlie observed them without concern. There was no rivalry between swarms. Sometimes two of them would float side by side for long periods, or even coalesce. Sometimes when two swarms were joined, individuals from one would adhere to another. No one thought anything of that. From that moment they were full members of their new swarm, and joined in its songs. But it was more common that each should stay in its own unmarked, but known, volume of air. They grazed the pollen fields of their own home air without coveting that of their neighbors. Though after half a dozen breedings there might be no single individual still alive of the original swarm, the swarm itself would still drift placidly over the same ten thousand square kilometers of ground. One place was almost like another. Over any one of those square kilometers

the sustaining air was always around them. The pollen clouds blew through them all.

Still, some parts of their range were more attractive than others. The mesa where the Persons of the Big Sun had built their shining shells and lit their blazing lamps had been one of their favorites, pollen drifting down off the hills in a pleasant stream and few *ha'aye'i*. Charlie sang sorrowfully of his regret as he thought of it, now that they must avoid it for all time to come. The bay of the ocean-lake where 'Anny 'Alehouse lived was, on the contrary, usually to be avoided. The water evaporating from the sea meant columns of rising cloud, and killer balloons no doubt in half of the columns. If any member of the swarm had chosen to question Charlie's decision to return there, it would have been quite reasonable to do so, in practical terms. But in terms of the lives of the balloonists themselves, it was quite impossible. Their group decisions were never questioned. If a senior adult sang *Do thus*, it was done. Charlie was the most senior of adults, and so his song usually prevailed. Not always. Now and then another adult would sing a contrary proposal ten minutes later, but if Charlie returned to his own ten minutes after that, there was no complaint. Each of the other adults loyally picked up his song, and the swarm complied.

There was also the consideration that Charlie had brought to the swarm his Friend of the Middle Sun, with his astonishing and fascinating new sounds. This was a Person! Puzzling, yes. But not like

those earthbound grubbers of the Little Sun or the strange creatures of the Big Sun who flew only with the help of killing machines. As the swarm drew near the camp of the Middle Sun, all of the adults rotated their bodies so that their tiny faces, like the features of engorged ticks, looked downward, anxious to spy 'Anny or 'Appy. Even the balloonets were caught up in the happy fever of the search; and when the first of the swarm spotted Danny rising to meet them, the song of the flock became triumphant.

How strange 'Anny 'Alehouse looked this time! His lifting sac had always been disagreeably knobby and lacking in any decent coloration, but now it was swollen immensely and knobbier than ever. Charlie might not have recognized him, if there had been more than one other like him in all the world to confuse him with. But it was 'Anny all the same. The swarm swallowed hydrogen and dropped to meet him, singing the song of welcome Charlie had invented for his friend.

* * *

Dalehouse was almost as overjoyed to see the swarm again as the swarm was to see Danny Dalehouse. It had been a long time! After the storm there had been the time for cleaning up; and before they were through, the second ship had dropped out of the tachyon-charge state to bring them new people and a whole host of new equipment. That was fine enough, but to make them welcome and to integrate the new things into the old had taken time. More than time.

Some of what they had brought had been gifts for the balloonists, and to deliver the gifts meant more load had to be lifted, which meant a bigger cluster of balloons, which meant making and filling new ones and redesigning the ballasting system to compensate. Danny was far from sure it had been worth it.

But there had also been half a kilo of microfiches from the Double-A-L, and those had been worth a lot. Professor D. Dalehouse was now a name to conjure with among xenobiologists. They had quoted his reports in every paper. And the papers themselves had given much to think of. Among the conferees at Michigan State a battle had raged. In the evolution of the balloonists, where was Darwin? When a female scattered her filamentary eggs into the air of Klong like the burst of a milkweed pod, and all the males spewed sperm at once, where was the selection of the fittest? What kind of premium on strength, agility, intelligence or sexual attraction would make each generation somehow infinitesimally more "fit" than the one before in an ontogeny where all the males spurted all their genes into a cloud of mixed female genetic material, with the wind for a mixer and random chance deciding who fathered which on whom? The balloonists kept no Leporello lists. Well, any one of them might have fathered a *mille-tre*; but if so, he never knew it.

Charlie could have settled the debate if asked. All the balloonists were sexually mature as soon as they were able to drop their spider-silk parachute threads and float free.

But all balloonists were not equal in size.

The older, the bigger. The bigger, the more sperm or eggs they flung into the collective pool. Human beings, by contrast, cease to play a part in evolution before half their lives are over. Wisdom does not come at twenty-five. By the time there is a significant difference between a Da Vinci and a dolt, the days of breeding are over. Selection plays no further part. Nor does it in resistance to the degenerative diseases of the old, which is why in two million years the human race has not selected against cancer, arthritis or arteriosclerosis. Raunchy young cells have been disciplined by the stresses of fifty thousand generations. But past the breeding age the cell runs out of programming. It doesn't know what to do next. It begins to fall apart.

With the balloonists it was different. The Charlie-sized giants among them sprayed half a liter of mist-of-sperm into each receptive cloud of eggs, while the tiny first-swarm male balloonets squeezed out hardly a drop. The Charlies had proved their fitness to survive by the most conclusive of tests: they had survived.

Dalehouse was eager to try to settle questions like that as he called to Charlie and swung in to meet him, even more eager to try the new language elements the big computers on Earth had generated for him. What was occupying most of his attention, though, was his gift from Earth. Like the swarm's greeting song, it was an example of the thing his society did best. It was a weapon.

It was not entirely a free gift, Dalehouse reflected, but then there is nothing without a price. Charlie's song cost him some of his reserve of lifting gas, as the songs that were their life always cost the swarm. If they sang, they vented gas. If they vented gas, they lost lift. If they lost lift, sooner or later they drifted helplessly down to the eager mouths on the surface to be eaten. Or, almost as bad, to live on there, helpless and voiceless, until they were able to accumulate and dissociate enough water molecules to recharge their stocks—quickly, if Kung were kind enough to flare for them; painfully slowly otherwise. It was a price they paid gladly. To live was to sing; to be quiet was to be dead anyway. But it was, at the end, for most of them, the price of their lives.

The price of the gift Danny Dalehouse brought was the lives of the five balloonists that had been sent back to Earth in the return capsule.

The designers at Fort Detrick had made good use of the samples. The two that were dead on arrival were dissected at once. Those were the lucky ones. The other three were studied *in vivo*. The biggest and strongest of them lasted two weeks.

The Fort Detrick experimenters also had a price to pay, because eight of them came down with the Klongan hives, and one had the severe misfortune to have his skull fill up with antigenic fluid, so that he would never again in the rest of his life stress an experimental subject. Or, indeed, hold a fork by himself. But probably the balloonists who had been his subjects would not

have thought that price unfair.

Danny Dalehouse unslung the lightweight carbine from one shoulder and practiced aiming it. Its stock was metal shell, and sintered metal at that: it weighed hardly a kilogram, but half that weight was in high-velocity bullets. It was poor design. He felt sure the recoil would kick him halfway across the sky if he fired it, and anyway what was the use of high-velocity bullets? What target was there in the Klongan air that needed that sort of impact to destroy? But the word from Earth brought by the reinforcement party that had been labeled a U.N. peacekeeping committee was that it must be carried. So he carried it.

He put it back and, somewhat uncomfortably, took Charlie's gift off the other shoulder. Now, *that* was more like it. Somebody somewhere had understood what Charlie's people could do, and what they needed in order to protect themselves against predators. It weighed even less than the carbine, and it contained no propellants at all. Its tiny winch could be operated by the claws of a Charlie to tighten a long-lasting elastic cord. Its trigger was sized to fit a balloonist, and what it fired was a cluster of minute needles or, alternatively, a capsule of some sort of fluid. Needles were for airborne predators. The fluid, or so Danny was told, was against creatures like the crabrats, if a balloonist was forced down and needed defense; and it would only incapacitate them without killing.

It would tax all of Dalehouse's linguistics to convey any part of that to Charlie, but the way to get it done was to begin. He held the

crossbow up and sang, carefully attending to the notes he had been taught by the computers at Texas A&M: "I have brought you a gift."

Charlie responded with a burst of song. Dalehouse could understand no more than a few phrases, but clearly it was a message of gratitude and polite inquiry; and anyway, the little tape recorder at his belt was getting it all down for later study. Danny moved on to the next sentence he had been taught: "You must come with me to find a *ha'aye'i*." That was hard to sing; English does not come with glottal stops, and practicing it for an hour had left Dalehouse's throat sore. But Charlie seemed to understand, because the song of thanks changed to a thin melody of concern. Danny laughed. "Do not fear," he sang. "I will be a *ha'aye'i* to the *ha'aye'i*. We will destroy them with this gift, and the swarm will no more need to fear."

Song of confusion, with the words "the swarm" repeated over and over, not only by Charlie but by all his flock.

The hardest part of all was yet to come: "You must leave the swarm," sang Dalehouse. "They will be safe. We will return. But now just you and I must fly to seek a *ha'aye'i*."

It took time; but the message ultimately seemed to get across. It was a measure of the balloonist's trust in his friend from Earth that he was willing to embark on so fearful an adventure with him. The members of the flock *never* left it by choice. For more than an hour after they dropped to a lower level and left the flock behind, Charlie's song

was querulous and sad. And no *ha'aye'i* appeared. They left the Food Bloc camp far behind, drifting down the shore of the sea-lake, and then across a neck of it to the vicinity of the Peeps' tattered colony. For some time Dalehouse had been wondering if the Texas computers had in fact really given him the right words to sing. But then Charlie's song turned to active fear. They dipped low under a bank of clouds, warm-weather cumulus that looked like female balloonists turned upside down, and from one of them dropped the predatory form of a killer.

Danny was uneasily tempted to slay this first one with his own carbine. It was frightening to see the *ha'aye'i* swoop toward them. But he wanted to demonstrate his gift to Charlie.

"Watch!" he cried, clumsily grasping the grip that had been designed for balloonist claws. He circled the swelling form of the air-shark in the cross-haired sight, designed for balloonist eye-patches, feeling the low vibrations of Charlie's muttered song of terror. At twenty meters he squeezed the trigger.

A dozen tiny metal spikes lashed out at the *ha'aye'i*, spreading like the cone of fire of a shotgun shell. One was enough. The shark's bag ripped open with a puff of moisture. The creature screamed once in pain and surprise, and then had no more breath to scream with. It dropped past them, its horrid little face writhing, its claws clutching uselessly toward them, meters away.

A bright trill of surprise from

Charlie, and then a roaring paean of triumph. "This is a great good thing, 'Anny 'Alehouse! Will you slay all the *ha'aye'i* for us?"

"No, not I, Charlie. You will do it for yourself!" And hanging in the air, Danny showed him the clever little crank that worked the elastic cord, the simple breech that the cluster of needles dropped into. For a creature who had never used tools before, Charlie was quick to grasp the operation. Dalehouse had him fire a practice round at a cloud, and then watched patiently while the balloonist painfully wound the winch for himself and loaded again.

They were no longer quite alone. Unbidden, the swarm had drifted after them and were floating half a kilometer away, all their eyepatches rotated toward them, their distant song sweet and plaintive, like a puppy's lonely begging to be let in. And down below the Peeps' camp was near, and Dalehouse could see one or two upturned faces curiously staring at them. Let them look, he thought virtuously; let them see how the Food Exporting Powers were helping the native races of Klong, if they had so little to do with their time. There were only a handful of them left of the original expedition, and their much-boasted reinforcements showed no signs of arriving.

Reinforcements. Reminded, Dalehouse began the rest of his message for Charlie. "This gift," he sang, "is yours. But we would ask a gift of you, too."

"What gift?" sang Charlie politely.

"I do not know words," sang Danny, "but soon I will show you. My swarm-mates ask you to carry

some small things to other places. Some you will drop to the ground. Some you will bring back." Teaching Charlie how to point the cameras and sound-recording instruments was going to take forever, Dalehouse thought glumly; and how were they ever going to tell him where to drop the clusters of wolftrap sensors and seismic mikes? What seemed so simple on Earth was something else entirely on Klong—

"Beware, beware!" sang the distant, frantic voices of the swarm.

Tardily Danny looked around. The *ha'aye'i*'s rush caught them unaware. It came from behind and below, where Dalehouse had not thought to look. And Charlie, fondling his new toy and trying to understand what Dalehouse wanted of him, had been careless.

If it had not been for the distant shrieking of the swarm, the creature might have had them both. But Charlie spun faster than Dalehouse, and before Danny could unlimber his carbine, the balloonist had shown how well he had learned his lesson by killing the killer. Either of them could have reached out and caught the long, wicked claws of the *ha'aye'i* as it fell past them; it was that close.

"Well done!" yelled Dalehouse, and Charlie pealed in rapture:

"Well, well done! How great a gift!" They rose to rejoin the swarm—

Lances of golden fire reached up faintly toward the flock from the Peeps' camp below.

"My God!" shouted Danny. "The fools are setting off fireworks!"

The rockets exploded into showers of sparks, and all through the swarm balloonists were bursting into bright hydrogen flame.

X

When Dulla was awake, which was not much of the time, he was only blurrily conscious of what was going on. At first there had been a recurrent *whack, whack* which he could not identify, and some person who seemed vaguely familiar manhandling him into whatever it was that was making the sounds. Then pain. A lot of pain. Then long periods when people were talking to him, or around him. But he felt no impulse to answer. In his brief conscious times he, by and by, discovered he was no longer in pain. The treatment the Greasies had given him had been unpleasant, but it seemed to have done the trick. He was alive. He was rehydrated. The swellings had gone down. He was no longer blind. He was only very weak.

When he woke up and realized that he was not only awake but actually seemed able to keep his eyes open for a while, Feng Hua-tze was standing by his cot. The Chinaman was looking very stretched out, Dulla thought with some contempt; he looked even worse than Dulla himself felt.

"You are feeling better?" Feng asked sadly.

Dulla thought it over. "Yes. I think so. What has happened?"

"I am glad you are feeling better. The long-noses brought you here from the place of your beetle friends. They said you would live,

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but I didn't think so. It has been a long time. Do you want to eat?"

"Yes—no," Dulla corrected himself, "I do, but not at this moment. I want the w.c. first."

"Shall I help you?"

"No. I can do it myself."

"I am glad of that, too," said Feng, who had been functioning as bedpan orderly for all the days of Ahmed Dulla's recovery, and for time before that longer than he cared to remember. The Pakistani raised himself painfully from the inflatable cot and moved slowly toward the slit-trench latrine.

He gazed disapprovingly around the camp. One of the noises he had been hearing identified itself for him, a slapping, rasping sound that turned out to be the water wheel. So at least there should be power. But where were the promised flood-lights, the growing crops, the comforts? Where were all the people?

Feng had followed him and stood gazing mournfully as Dulla relieved himself. "Why do you stand there?" snapped Dulla, tying up his pajama cord and making hard work of it. "What has happened? Why has so little been done?"

The leader spread his hands. "What can I say? There were ten of us. Two died with you, in this venture you found so necessary. One other died here. Two were so ill they had to be returned to Earth—by courtesy of the Greasies. We had no one well enough to fly the return capsule. The Italian is asleep, and the two women are gathering fuel."

"Gathering fuel! Are we become peasants again, Feng?"

The leader sighed. "I have done my best," he said; it was a sentence

he had been saying over and over to himself, for a long time. "Help is coming. Heir-of-Mao himself has ordered it, two great ships, material and persons, soon—"

"Soon! And until then, what? Do we do nothing?"

"Go back to bed," said Feng wearily. "You exhaust me, Dulla. Eat if you will. There is food. The Fats gave it to us, otherwise there would be none."

"And now we are beggars," sneered Dulla. He swayed and caught hold of Feng's shoulder. "For this I studied and came all these light-years! For this I almost died! How foolish we will all look when we return in disgrace to Earth!"

Feng shook his head heavily. He disengaged the Pakistani's hand from his shoulder and stepped downwind—the man was odorously unwashed. He did not need to hear any of this. He knew it for himself. He had accepted the charity of the Fats for the food without which they all would have starved; of the Greasies for the rescue of Dulla and for the return to Earth of the sick members of the expedition—who would no doubt even now be telling their debriefers how badly Feng Hua-tze had managed the expedition with which he had been entrusted. There would be large-character posters going up in K'ushiu about that even now. They would be very critical of him. When they got back to Earth—if they got back—the best hope he had was to become a barefoot biochemist again along the Yellow River.

Of course, if somehow they mercifully spared him until the two

great ships arrived—

Ah, then! He had pored over the tachtran messages and pictures yearningly. The second ship would bring not ten, not fifteen but a majestic thirty-four new persons. An agronomist! Someone to take up Feng's own pitiful beginnings, the mushrooms he had sown, the wheat seedlings he had coaxed to sprout—the fittest of them would survive, and the fittest of their descendants would flourish. There were two more translators, both split-brained, one of them a skilled littoral pisciculturist as well. The Great Water might yet yield food they could eat. A doctor—no, Feng corrected himself, a fully schooled surgeon, with a world reputation in the treatment of traumatic injuries. True, he was nearly two meters tall and black as a boy-child's hair, by his photograph. But still. Three of the new additions had limnology crash courses, and one of them, who had once been an officer in the Red Guards, had also had three years of experience as a scout in the Gobi, and later in the Himalayas.

And the worldly goods the other ship would carry! Photovoltaic generators, capable of pouring out 230-volt A.C. in really significant quantities. Plastic to spare. Pioneering tools—axes and machetes, and a few rifles for the collection of specimens, as well as for "game." Folbots. Magnesium-frame bicycles. A doubly redundant computer with no fewer than six remote-access terminals. Radio equipment. Laser equipment. Food. More food; food enough for all of them, for many months—

It seemed a dream!

But what was not a dream was that very surely, Feng knew, among those thirty-four persons would be one who would come over to him and quietly say, "Feng Hua-tse? I am directed by Heir-of-Mao to receive your report on why your custodianship of this project has not lived up to expectations." And then would come the sweating time. There would be no excuses accepted. He would not be interested in the mushrooms that were refusing to grow, or the specimens that Feng himself had painfully kept alive. He would only be interested in why three had died, and two had been sent home, and ten had accomplished so very little.

All this was in Feng Hua-tze's mind, but all he said was, "Go back to sleep, Dulla, I am out of patience with you."

* * *

Dulla did not go back to sleep.

Anger had given him strength. What he did was wake up the Italian. "Oh, you are alive again?" Spadetti yawned and rubbed the blue-black stubble on his chin. "We thought you were going to die," he said cheerfully. "I almost bet a day's ration on it. I would have been very angry to lose."

"I have been talking to Feng, that bungler!"

"It is not all Uazzi's fault, Dulla. We were the first. We made the mistakes that must be made so others can learn."

"I did not want to be teacher to the Fats and the Greasies! I did not want them here at all. This can be our planet, to shape as we will!"

"Yes," admitted Spadetti, "I

had some such thought myself. But, *chi sa*, what can you do? Each step seemed right at the time. Even yours, to make friends with the natives—"

"Those beasts! One cannot make friends with them."

"Oh, not true, Dulla. Our rivals have succeeded. The Fats have balloonists carrying their cameras all over the planet, or so they promise on the tachtran. The Greasies are teaching their moles and earthworms how to burrow under our camp and listen to what we say. Perhaps they are listening now."

"Nonsense! How stupid you are!"

"Stupid, perhaps, but no, it is not entirely nonsense," smiled the Italian, unoffended. "Perhaps I have made it a little bit of a joke, but I am not sure that I am joking. And what have we accomplished? I will be more exact, Dulla. What did you yourself accomplish, except to get two people killed, when you visited our *frutti-del-mare* friends? We failed. It is as simple as that." He yawned and scratched. "Now, Dulla, *per favore*, let me wake up by myself a little? I am not so happy with this reality around me that I want to leave my dreams so rudely."

"Drink your wine and dream then," said Dulla coldly.

"Oh, Dulla! But that is not a bad idea. If one only had a true wine instead of this filth."

"Pig," said Dulla, but softly enough so that Spadetti did not have to admit that he had heard it. He returned to his cot and sat heavily on the edge of it, ignoring Spadetti's soft-voiced imprecations as he

tasted the jungle juice he had made for himself. Perhaps it would kill him. Why not? The smell of it kept Dulla from wanting to eat, though he knew he should; he judged he had lost ten kilos at least since landing on Son of Kung, and he could not spare very many more. He sat breathing heavily, sucking through a straw at a flask of flat, tepid water from the still. By and by he noticed that there was a plastic pouch under his bed. He upended it, and covered the cot with a drift of tiny white fiche-prints.

"I see you have found your love-letters," called the Italian from across the tent. "Unfortunately, I cannot read your language. But she is quite a pretty girl."

Dulla ignored him. He gathered them up and carried them to the radio shack, where the only working viewer was. Spadetti had been right; they were almost all from the Bulgarian girl, and they all said much the same thing. She missed him. She thought of him. She consoled her lonely sorrow with the memory of their days together in Sofia.

But in the photographs there was Ana in Paris, Ana in London, Ana in Cairo, Ana in New York. She seemed to be having an interesting time without him.

Rich countries! At bottom, were they not all the same, whether the wealth was in fuel or in food? Wealth was wealth! A greater distance separated him from the fat Bulgarians than from—from even the Krinpit, he thought, and then realized almost at once that he was being unjust. Nan was not like that. But then she had had the advantage

of spending much of her childhood in Hyderabad.

Away from the smell of the Italian's imitation wine, Dulla realized he was hungry. He found some cracked corn and ate it while he went through Ana's letters quickly, and then, more slowly, the synoptics from Earth. Much had happened while he was out of it. The Fats had been reinforced from Earth—it was called a U.N. peacekeeping team, but that deceived only the most naive. The Greasies had established a satellite astronomical observatory and were monitoring changes in the radiation of Kung. There were problems with the satellite, and the results were unclear. Even so, Dulla studied the reports with fascination and envy. That should have been his own project! It was what he had trained for, all those graduate years. What a waste this expedition was! He glanced distastefully at the gaping rents in the tent, at the instruments that were scattered out to rust because there was no one to use them. So much to be done. So much that he could not think where to begin, and so could do nothing.

There was a racket outside which made Dulla glance up, frowning. Feng and the Italian, quarreling about something, and behind them the distant squawking of a herd of balloonists. If Heir-of-Mao had been a little more openhanded, and if Feng had been a bit less of a fool—Then they might have had a helicopter, like the Greasies, or the wit to make balloons, like the Fats, and he too might have had the chance to fly with the flocks. That chance was lost. Even the Kripnit,

whom he himself, Ahmed Dulla, had resolved to make contact with, were as strange to him as ever. It was not fair! He had taken the risk. He remembered well how he had felt as he lay helpless among the curious jostling masses of crablike creatures. If they hadn't tried to eat the other two first, he knew he would have wound up a meal. And for nothing. The one Kripnit they had a chance to communicate with, to keep for a specimen, Feng had allowed to be stolen by the Greasies.

There were sudden new sounds from outside, hissing white sounds that made Dulla get up and peer out of the tent. He saw flames reaching toward the sky, and Feng struggling with the Italian, while one of the Jamaican women swore angrily at them both. "What is happening here?" Dulla demanded.

The Italian pushed Feng away and turned toward Dulla, his expression repentant. "Uazzi wished to greet our friends," he said, peering aloft. The rockets had climbed up into the maroon murk and exploded, and there were smaller explosions all around them: balloonists had caught fire from the shower of sparks. "I helped him aim, but perhaps—perhaps my aim was not good," he said.

"Foolish one!" cried Dulla, almost dancing with rage. "Do you see what you have done?"

"I have burned up a few gasbags, why not?" grumbled Spadetti.

"Not just gasbags! Rub the wine out of your eyes and look again, there! Is that a gasbag? Do you not see it is a human being hanging there, wondering why we have tried

to kill him, anxious to return to his base with the Fats or the Greasies and report that the People's Republics have declared war? Another blunder! And one we may not survive."

"Peace, Dulla," panted Feng. "It does not matter if the Fats and the Greasies are angry at us now. Help is on the way."

"You are as big a fool as he! Shooting off fireworks like some farm brigade celebrating the over-fulfillment of its cabbage quota!"

"I wish," said Feng, "that you had not been rescued, Dulla. There was less struggle here when you were with Kripit."

"And I wish," said Dulla, "that the Kripit who tried to kill me was our leader here instead of you. He was less ugly, and less of a fool."

* * *

That Kripit was many kilometers away, and at that moment almost as angry as Dulla. He had been driven almost to the point of insanity, with the infuriating attempts of the Poison Ghosts of the Fuel camp to converse with him, with hunger and above all with the continual blinding uproar of the camp.

In the noisy bright world of the Kripit there was never a time of silence. But the level of sound was always manageable: sixty or seventy decibels most of the time, except for the occasional thunderclap of a storm. It almost never reached over seventy-five.

To Sharn-igon, the Fuel camp was torture. Sometimes it was quiet and dim, sometimes blindingly loud. The Kripit had no internal combustion engines to punish their

auditory nerves. The Greasies had dozens of them. Sharn-igon had no conception of how they worked or what they were for, but he could recognize each of them when it was operating: high clatter of the drilling machine, rubbery roar of the helicopter, rattle and whine of the power saws, steady chug of the water pump. He had arrived at the camp almost blind, for the nearness of the helicopter's turbojet had affected his hearing just as staring at the uncaged sun would damage a human's eyes; the afterimage lasted for days, and was still maddeningly distorting to his perceptions. He had been penned within steel bars as soon as he arrived. However hard he gnawed and sawed, the bars of the cage would not give. As soon as he made a little scratch in one, it was replaced. The Poison Ghosts troubled him endlessly, echoing his name and his sounds in a weirdly frightening way. Sharn-igon knew nothing of tape recording, and to hear his own sounds played back to him was as shattering an experience as it would be for a human to see his own form suddenly appear before him. He had realized that the Poison Ghosts wanted to communicate with him, and had understood a tiny portion of what they were trying to say. But he seldom replied. He had nothing to say to them.

And he was nearly starving. He survived, barely, on what little he would eat of what they put before him—mostly vegetation, of which he disdained the majority as a human being would spurn thistle and grass. His hunger was maddeningly stimulated because he could smell the tasty nearness of Ghosts

Below penned near him, and even a Ghost Above now and then. But the Poison Ghosts never brought him any of these to eat. And always there was the blinding roar of noise, of the equally unpleasant silences when the camp slept and only the faint echo from tents and soft bodies kept him company. Human beings, scantily fed on bread and water in an isolation cell, with bright lights denying them sleep, go mad. Sharn-igon was not far from it.

But he clung to sanity, because he had a goal. The Poison Ghosts had killed Cheee-pruitt.

He had not learned to tell one from another in time to know which was the culprit, but that was a problem easily solved. They were all guilty. Even in his madness it was clear to him that it was proper for him to kill a great many of them to redress their guilt, but what had not become clear to him was how. The chitin of claw and shell-sword were rubbed flat and sore against the bars, and still the bars held.

When all the sounds were out, he chatted with the Ghost Above, straining longingly against the bars. "I wish I could eat you," he said. If it had not been for the bars, the Ghost Above would have been easy prey. It had lost most of its gas and was crawling about the floor of a cage like his own. Its song was no more than a pathetic whisper.

"You cannot reach me," it pointed out, "unless you moult. And then I would eat you." Each spoke in its own language, but over thousands of generations all the races of Klong knew a little of the language of the others. With the

Ghosts Above you could not help being exposed to their constant singing, and even the Ghosts Beneath could be heard chattering and whistling in their tunnels. "I have eaten several of you hardshells," the Ghost Above wheezed faintly. "I particularly like the backlings and the first moult."

The creature was boasting, but Sharn-igon could believe the story easily enough. The balloonists fed mostly on airborne detritus, but to make their young healthy they needed more potent protein sources now and then. When the breeding time was on, the females would drop like locusts to scour the ground clean of everything they could find. Adult Kripit in shell were too dangerous, but in moult they were fair game. Best of all was a clutch of Ghosts Below caught on their thieving raids to the surface—for Kripit as well as balloonist. The thought made Sharn-igon's salivary glands flow.

"Hard-shell," whispered the Ghost Above, "I am dying, I think. You can eat me then if you like."

In all honesty, Sharn-igon was forced to admit, "You may be eating me before that." But then he perceived that something was strange. The Ghost Above was no longer in its cage. It was dragging slowly across the floor. "How did you escape?" he demanded.

"Perhaps because I am so close to death," sang the Ghost Above faintly. "The Killing Ones made a hole in my sac to let the life out of me, and then closed it with a thing that stuck and clung and stung. But it has come loose, and almost all my life has spilled away, and I was

able to slide between the bars."

"I wish I could slide through the bars!"

"Why do you not open the cage? You have hard things. The Killing Ones push a hard thing into a place in the cage when they want to, and it opens."

"What hard thing are you speaking of? I have worn my shell to pulp."

"No," sighed the balloonist. "Not like your shell. Wait, there is one by the door, I will show you."

Sharn-igon's conception of keys and locks was quite unlike a human's, but the Kripit too had ways of securing one thing to another temporarily. He chattered and scratched in feverish impatience while the dying gasbag slowly dragged itself toward him, with something bright and hard in its shadowy mouth.

"Could you push that thing into the place in my cage?" he wheedled.

The Ghost Above sang softly to itself for a moment. Then it pointed out, "You will eat me."

"Yes, I will. But you are very close to dying anyway," Sharn-igon pointed out; and added shrewdly, "You sing very badly now."

The balloonist hissed sadly without forming words. It was true.

"If you push the hard thing in the place in my cage so that I can go free," bargained Sharn-igon, "I will kill some of the Poison Ghosts for you." He added honestly, "I intend to do that in any case, since they killed my he-wife."

"How many?" whispered the balloonist doubtfully.

"As many as I can," said

Sharn-igon. "At least one. No. Two. Two for you, and as many as I can for me."

"Three for me. The three who come to this place and cause me pain."

"All right, yes, three," cried Sharn-igon. "Anything you like! But do it quickly if you are going to do it, before the Poison Ghosts come back!"

* * *

Hours later, at almost the last of his strength, Sharn-igon staggered into a Kripit village. It was not his own. He had seen the sounds of it on the horizon for a long time, but he was so weak and filled with pain that it had taken him longer to crawl the distance than the tiniest backling. "Sharn-igon, Sharn-igon, Sharn-igon," he called, as he approached the alien Kripit. "I am not of your place. Sharn-igon. Sharn-igon!"

A gravid female scuttled past him. She moved slowly, because she was near her time, but she ignored his presence.

That did not surprise Sharn-igon. It was what he had expected. Indeed, each lurching step into the alien village was harder for him than the one before, and he was a professional empathizer. "Sharn-igon," he called bravely. "I would speak to one among you, although I am not of this place."

There was no answer, of course. It would not be easy to make contact. Each village was culturally, as well as geographically, isolated from every other. They did not fight. But they did interact. If a party of Kripit from one village

chanced upon an individual or a party from another, they depersonalized each other. One Kripit might push one from another village out of the way. Two alien Kripit might each take an end of a Many-Tree trunk that was barring their collective way. Both would lift. Neither would address the other.

Genetically the villages were not isolated. The seedlings dropped from their he-father's backs when they were ripe to do so, wherever they might be. If they chanced to be near an alien village when they did—and if they were lucky enough to make their way to it without becoming food for a Ghost Below or any other marauder—they were accepted there as readily as any autochthone. But adults never did such a thing.

On the other hand, adults never found themselves in Sharn-igon's position, until now.

"Sharn-igon, Sharn-igon," he called, over and over, and at last a he-mother crept toward him. It did not speak directly to him, but it did not retreat, either. As it moved, it softly made the sound of its name: Tsharr-p'fleng.

"Have you had a good Ring Greeting, alien brother?" Sharn-igon asked politely.

No answer, except that the sound of the stranger's name grew a trifle louder and more assured.

"I am not of this place," Sharn-igon acknowledged. "It is most unpleasant for me to be here, and I am aware it is unpleasant also for you. However, I must speak with you."

Agitatedly the other Kripit

scratched and thumped its name for a moment, and then managed to speak. "Why are you here, Sharn-igon?"

He collapsed on the knees of his forelegs. "I must have food," he said. The balloonist had been so very thin and frail, he had made only half a meal, and of course Sharn-igon had been careful not to eat any part of the Poison Ghosts. He was not sure he had succeeded in killing all three, but two at least were certain and the other would be a long time recovering. That settled the score for the balloonist.

But not for Chee-pruitt.

* * *

"If Sharn-igon had not been a professional empathist he could not have broken through the barriers between villages. Even so, it took much time and all of his persuasion; but at the end of it Tsharr-p'fleng helped him to a dwelling-pen and ministered to his needs.

Sharn-igon devoured the crab-rat they brought him, while Tsharr-p'fleng engaged in agitated conversation with others of the village just outside the wall. Then they came in and ranged themselves around Sharn-igon, listening to him eat. He ignored their polite scratches of curiosity and concern until every morsel was gone. Then he pushed away the splintered carapace and spoke.

"The Poison Ghosts killed my he-wife, and did not eat him."

A flickering sound of disgust.

"They captured me and held me in a place without doors. They removed my backlings and took them

away. I do not think they were eaten, but I have not heard them since."

Brighter sounds, disgust mixed with sympathy and anger.

"Moreover, they have also captured Ghosts Above and Ghosts Below, and many of the lesser living things, and have eaten none of them. I therefore killed three of the Poison Ghosts. I intend to kill more. Are you backmates with the Poison Ghosts?"

The he-mother rustled and spoke with contempt. "Not those! Their backmates are the Ghosts Below."

Another said, "But the Poison Ghosts have ways of killing. They have spoken to us in our language and told us to beware of them, lest they kill us."

"Beware of what? What did they tell you to do?"

"Only to refrain from harming any of them, for then they will kill all our village."

Sharn-igon said, "The Poison Ghosts do not speak truth. Listen! They say they come from another world, like the stars in the sky. What are these stars?"

"They say they are like the heat from the sky," muttered the other.

"I have felt the heat from the sky. I have felt no heat from these other stars. I hear nothing from them. No matter how loud I shout, I hear no echo from any of them."

"We have said these things ourselves," said Tsharr-p'fleng slowly. "But we are afraid of the Poison Ghosts. They will kill us, without eating."

"They will, it is true," said Sharn-igon. He paused. Then he went on: "Unless we kill them first.

Unless all of our villages together fall upon them and kill them, without eating."

XI

Marge Menninger's hair was no longer blonde. The name on her passport was not Marge Menninger. According to her travel orders, she was now a major, en route to a new duty station; and although the orders authorized a delay en route, it was unlikely that the general who signed them had contemplated that it would be spent in Paris.

In the little room of her hotel she fidgeted over the so-called croissant, and what passed for orange juice, and phoned down to the concierge to see if the message she was expecting had arrived. "I regret it, Meez Bernardi, but there is nothing," sighed the concierge. Marge took another bite of the croissant and gave it up. France was nominally part of the Food Bloc—by the skin of its teeth, and by the relabeling of Algerian wine for export—but you couldn't prove it by what they gave you for breakfast.

She was tired of this room, with its leftover smells of *khef* and sexual athletics from its previous occupants. She wanted to move around and couldn't. And while she was fretting away time in this room, the Peep ships were going through pre-launch, the training of backup crews for the next Food Bloc mission was limping along without her and only God knew what disasters were taking place in Washington and at the U.N.

She abandoned the breakfast and dressed quickly. When she came downstairs, of course there was a

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message at the concierge's desk, on a flimsy blue slip of paper:

Miss Hester Bernardi will be picked up at 1500 hours for her appointment.

It had obviously been there all along. Margie did not bother to reprimand the concierge; tipping time would take care of that. She pushed her way out into the rue Caumartin, deciding what to do next. Six hours to kill! And for the life of her she could not think of any productive use to make of them.

It was a warm, drizzly day. The stink of gasoline drenched the air over the Place de l'Opera. Food Bloc or not, France was cozy with the Ay-rabs, as well as the Peeps. That was another reason you could not trust the frogs, Margie thought darkly. One of her grandfathers had marched into this city in *Wehrmacht* gray and the other, in the opposite direction a few years later, in American olive-drab, and both of them had passed on to her their feelings about the French. They were inconstant allies, and unreliable subjects, and the few who ever seemed to have any sense of national purpose usually wound up having their heads shaved by the many who did not. In Margie's view, the French were not a bit better than the English, the Spanish, the Italians, the Portuguese, the Asians, the Africans, the Latins and about ninety per cent, when you came right down to it, of the Americans too.

But the immediate problem was not what was wrong with humanity but what she could do with this day. There was only one answer. She

could do the thing most American women came to Paris to do. She could shop.

She not only could shop, she must; it was the best way of avoiding attention. She not only must, she wanted to.

It was one of Margie's most closely guarded secrets that periodically she went on shopping binges, out of one store and into another, pricing fabric, trying on dresses, matching shoes with gowns. In her little Houston apartment there were two closets, plus half of what was meant to be a guest room, filled with her purchases. They were thrown jumbled onto shelves, pushed under a bed in their original store bags; sweaters she would never wear, material half-sewn into drapes that would be hung. Her living room was spartan and her bedroom was always immaculate, because you never knew who might drop in. But the secret rooms were part of the hidden personality of Margie Menninger. None of what she bought was very expensive. It was not because she was economical. She had unaccounted funds at her disposal, and the prices never mattered. But her taste was for quantity rather than quality. Periodically she would wage war against the overflow and then for a while Goodwill and the Salvation Army would fatten off her discards. But a week later the hoard would have grown again.

Margie did not bother with the tourist traps along the Champs Elysees or the tucked-away boutiques. Her tastes were for stores like Printemps, Uniprix and the Galeries Lafayette. The only fly in the ointment was that she could

not buy anything. She could not carry it where she was going, and did not want to attract attention by leaving it, so she tried on, and she priced, and for six hours she made the lives of a score of Parisian shopgirls a living hell. That didn't bother Margie Menninger at all. By the time the taxicab picked her up at her hotel, punctually on the tick of three o'clock, her good nature was restored. She leaned back against the hard plastic seatback of the cab, ready for what was to come next.

The driver stopped at the Place Vendome long enough for another passenger to jump in. Behind his tourist shades was the face of her father, which was no surprise to Margie. "Bonjour, honey," he said. "I brought you your toy."

She took the camera he offered her and hefted it critically. It was heavier than it looked; she would have to be careful not to let anyone else pick it up.

"Don't try to take pictures with it," he said. "because it won't. Just hang it around your neck on the strap. Then, when you get where you're going—" he pushed the shutter lever, and the casing opened to reveal a dull metal object inside—"this is what you give your contact. Along with a hundred thousand petrodollars. They're in the carrying case."

"Thank you, Poppa."

He twisted in the seat to look at her. "You're not going to tell your mother that I let you do this, are you?"

"Christ, no. She'd have a shit hemorrhage."

"And don't get caught," he

added as an afterthought. "Your contact was one of Tam Gulsmit's best people, and he is going to be really ticked off when he finds out we turned him. How are things going at Fort Detrick?"

"Good shape, Poppa. You get me the transport, I'll send some good people."

He nodded. "We've had a little lucky break," he offered. "The Peeps fired on one of our guys. No harm done, but it makes a nice incident."

"Didn't he fire back, for Christ's sake?"

"Not him! It was your old jailhouse buddy, the one from Bulgaria. As near as I can tell, he doesn't believe in the use of force. Anyway, he did exactly what I would have told him to do. He got the hell out of there and reported back to the U. N. peacekeeping force, and he had tapes and pictures to prove what he said." He peered out the window. They had crossed the Seine. Now they were creeping through heavy traffic in a working-class neighborhood. "This is where I get out. See you in Washington, love. And take care of yourself."

* * *

Early the next morning, Margie was in Trieste. She was not Hester Bernardi any more, but she wasn't Marge Menninger either. She was a sleepy Swiss-Italian housewife in a sweaty pants suit, driving to the Yugoslav border in a rented Fiat electrocar with a crowd of other Sunday-morning shoppers looking for cheap vegetables and bargains in Yugoslavian kitchenware. Unlike

them, she drove straight through to Zagreb, parked the car and took a bus to the capital.

When she reached Belgrade, the object her father had given her was at the bottom of a plastic shopping bag, with an old sweater and a shabby pocketbook on top of it. And she had had very little sleep.

Margie could not have grown up in the household of Godfrey Menninger without learning the easy dialogue of espionage. In all the world, she was the only person with whom her father had always been open. First because she was too little to understand, and so he could speak freely in her presence. Then because she had to understand. When the PLO kidnapped her, she had been terrified past the point a four-year old can survive, and her father's patient explanations had been the only thing that let her make sense of the terror. And finally, because he trusted her to understand, always, that the grotesque and lethal things he did had a purpose. He never questioned that she shared that purpose. So she had grown up in an atmosphere of drops and liquidations and couriers and double agents, at the center of a web that stretched all around the world.

But now she was not at the center of the web, she was not where the risks were immense and the penalties drastic. She walked quickly down the busy streets, avoiding eye contact. The closet-sized shops had their doors open, and confusing smells came out of them: a knifelike aroma of roasting meat from a dressmaker's (when had she eaten last?), the sting of unwashed

armpits from what seemed to be a costume-jewelry boutique. She crossed, dodging a tram, and saw the office she was looking for. The sign said "Electrotek Münschen," and it was over a sweatshop where fat, huge men in T-shirts worked at belt-driven sewing machines.

She checked her watch. There was more than an hour before her first possible contact. The man she needed to meet was a short, slim Italian who would be wearing a football blazer with the name of the Skopje team. Of course, no one like that was in sight yet—even if he turned up for the first rendezvous, which her father had warned was unlikely.

Down the block there was a cluster of roofed sheds surrounding a gabled two-story building that looked like any American suburban town's left-over railroad station. A farmer's market? It seemed to be something like that. Margie pushed her way through crowds of women in babushkas and women in minifrocks, men in blue smocks carrying crates of pink new potatoes on their shoulders and men with a child on each hand, studying counters of chocolates and jellies. It was a satisfying, busy mob. She was not conspicuous there.

She was, however, hungry.

Strawberries seemed to be in season. Margie bought half a kilo, and a bottle of Pepsi, and found a seat on a stone balustrade next to an open suitcase full of screwdrivers and cast-aluminum socket wrenches. What Margie wanted most was a hamburger, but no one seemed to be selling anything like that. But others were eating strawberries, and

Margie was confident she looked like any of them, or, at least, if not like them, like some housewife who might have stopped en route to any ordinary destination to refresh herself.

At two, punctually, she was back in front of Electrotek Munschen, studying a Belgrade bus guide as instructed. No short, slim Italian appeared. Twice she caught snatches of words that seemed to be in English, but when she looked up from her bus guide and glanced casually in that direction, she could not tell which of the passersby had spoken. She pitched the bus guide into a corner sewer and walked angrily away. The second appointment was not until ten o'clock, at one of the big old luxury hotels, and what in God's name was she going to do until then?

She had to keep moving. It was very hard to stroll for more than seven hours, however many Camparis and soda you are willing to stop and drink. God bless, she passed something that called itself, in Cyrillic letters, an *Express-Restoran*, and when she realized that it was a cafeteria, one problem, at least, was solved. She pointed at something that looked like roast chicken, and probably was, and with the mashed potatoes and bread that went with it, at least she was full. Full of time. She emptied herself of as much of it as she could: a stroll through the botanical gardens, a long window-shopping stroll down the Boulevard Marshall Tito. And then it began to rain. She retreated in to a *Bioskop* and watched a Czech comedy with Serbo-Croatian subtitles until nine. The

only problem was staying awake, but when she got to the hotel, there was a real problem. Ghelizzi did not show up there, either.

By now she was almost dizzy with fatigue, her clothes were sweaty and rain-stained and she was sure she was beginning to smell. Poppa had not really thought these arrangements through, she thought with some bitterness. It should have occurred to him that the waiters at the hotel bar would not fail to notice a sweaty, dirty foreign woman among all their marble and their string trios. If she had been a man, it might not have mattered. A man could have been checking out the hotel whores, the skinny dark-at-the-roots blonde playing solitaire by the fireplace, the plump one with the bright red hair who had left the aperitif-lounge twice in one hour, with different men, and was back again, ready for the next. Margie refused another Campari, and sent the waiter for a Turkish coffee. The next appointment was not until the following afternoon, and where would she sleep?

The whores had rooms. If she had been one of them—

The idea did not disturb Margie in any moral way, but it took only a second for her to discard it as impractical. Even if she had a room, the waiters would surely throw her out to protect the existing monopoly the first time she looked toward one of the solitary males. They were already looking at her with interest, and beginning to take the cloths off some of the tables in the farther end of the room.

Margie picked up her coffee and moved to the table of the streaked

blonde. She spoke to her in English, confident that in a tourist hotel the girls would be fluent in the necessary words in any major language. "How much for all night?" she asked.

The blonde looked scandalized. "For yourself? How disgusting! I could not possibly do such a thing with a woman."

"Fifty dinars."

"One hundred."

"All right, one hundred. But I have very special tastes, and you must do exactly as I ask."

The blonde looked skeptical, then shrugged and signaled the waiter. "First you must buy me a real Scotch-whiskey while you explain what these tastes are. Then we will s'e."

* * *

In the morning Margie woke up refreshed. She used the whore's tiny shower to get clean, dressed quickly and paid the woman off with a smile. "May I ask a question?" the whore offered, counting the money.

"I can't stop you from asking."

"This thing you had me do, simply rubbing your neck each time you woke until you fell asleep again? Is that truly satisfying to you?"

"You wouldn't believe how satisfying," smiled Margie. She strolled grandly out of the hotel, nodding politely to the local police in their baggy gray uniforms open at the

neck, the hands on the guns in the cardboard holsters. A few blocks down the boulevard took her to the London Cafe, and there, nursing a beer at one of the indoor tables, was the slim, short Italian wearing a Skopje football cap.

She sat down and ordered a coffee, then visited the women's w.c. When she came back, the Italian was gone. The bag she had left on her chair did not appear to be disturbed, but her exploring fingers told her the camera was gone, and in its place was a guide folder about the hovercraft cruise to the Iron Gorge.

She made her way back across the border in the same order. By the time she was in Trieste again, and able to resume the identity of the American tourist, Hester Bernardi, she was fully restored. On the clam-jet to Paris she locked herself in the toilet and studied the contents of the travel folder.

How Ghelizzi had come to be a person of trust in Sir Tam's army of spies was beyond her; he had not impressed her as being the sort of man one would repose faith in. But he had delivered the goods this time. The little device was on its way, and the complete file of secret tachtran messages between Earth and the Fuel Bloc camp on Klong was in her hands in microfiche. Her father would be very proud.

TO BE CONTINUED

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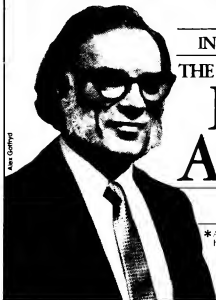
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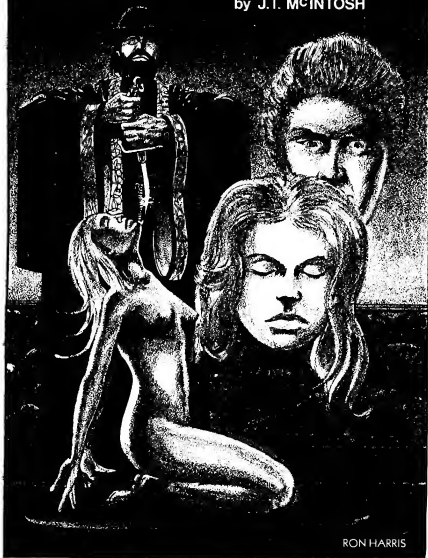
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* Actually, Isaac likes to keep his publishers happy, so he has written two "200th books." You'll also find *Opus 200*, published by Houghton Mifflin, at booksellers now.

 DOUBLEDAY

THE WORLD OF GOD

by J.T. MCINTOSH



RON HARRIS

Something was rotten in the State of Peusa. . . .

THE SOFTLY CURVING walls of the Temple of God soared upward to the sky. No living man or woman had ever seen where and how they converged in the apex of the vast building. There were no windows higher than fifty feet, and the inward-curving walls above the windows rose on into the void—first white, then gray, then utter black.

Preacher Peter said: "And I say unto you, in the Word of God in this Temple of God in the World of God, the Sun is most wondrous, the Sun of God gives us life, praise the Sun of God. . . ."

Fredi was not listening, and this in itself was a crime. Not heeding the Word of God—unlike the thousands of others in the enormous Temple, who were listening so intently that every nuance of Peter's voice reached them—was sinful. But it did not bother Fredi, who carried in his bosom a crime so much greater.

Fredi was in love with a priestess—in fact, with the High Priestess herself. More specifically, he lusted after the High Priestess; and although as an intelligent youth he could not believe that such a thing had never happened before, it was to him as though the first and only time, because no one had ever dared admit such feelings.

Preacher Peter said: "Praise the Sun, from whom all blessings flow. The Sun of God was sent to save us from eternal darkness. . . ."

Fredi, conscious of sinning, was not certain whether he felt more or less guilty inasmuch as until recently he had been a devout worshiper—and had even considered trying to become a priest himself. Since so few were called, he had become an actor instead.

Anyway, now all thoughts of becoming a priest were banished. One who sinned as he was sinning, even if only in his mind, was not worthy. His personal integrity lacked the sublimity to make him openly confess his crime; yet it was strong enough that he would never be able to imagine himself as one of the Twelve Apostles.

Preacher Peter said: "Praise the Holy Trinity, the Word of God, the Sun of God and the World of God. . . ."

It would not be long now, Fredi thought, his mind surfacing briefly to see and hear how far the preacher had progressed. Vaguely he remembered once having heard the phrase, "The Father, The Son and the Holy Ghost," but that obviously came from a corrupt early form of worship, probably devil-worship—certainly it was arrant superstition, dragging a ghost into it and per-

sonifying God as the Father and the Sun as His Son.

While Fredi's mind had wandered, the priest had come to the end of the sermon and now everyone was chanting softly, Fredi included: "Our God which art in the sky, hallowed be Thy name, Thy World is come. Thy will be done in the World as it is in the sky. . . ."

And then the twelve priestesses emerged through the pillared arch, led by the High Priestess Mary, Virgin Mother of the Sun.

Fredi did not even see the eleven other priestesses; it was as though he had never seen them. He saw only Mary.

Fair-haired, tall, bare-shouldered, bare-armed, barefoot, she wore a long, loose, white gown. She was beautiful. She was pale. She was pure.

The unseen organist sounded a note and she sang: "O God, our help in ages past." Everyone joined in, but by ritual she sang the last verse alone, her silvery voice soaring to the dark emptiness high above:

If ever I forget the way
To live the sacred life,
I trust and pray that on that day
I feel the sacred knife.

It was only on this day, watching and listening to the High Priestess, that Fredi—for the first time—found her ritual verse somehow wrong. Certainly the rest of the hymn was not likely to be attributed to Shakespeare; and there was something odd, something amiss, in the second verse:

Below the blanket of Thy sky
Thy folk have slept secure;
Sufficient just that Thou art nigh
And our defense is sure.

But the second-last verse, almost a repeat of the first, was clearly the original last verse. The High Priestess's ritual solo verse had surely been added later.

But it did not matter. Mary could sing the alphabet and he would find it sheer poetry.

Mary . . . six months ago she had been Lori Jones. If Fredi had known her then, much might have happened. Although even at that time she was already under the protection of the Temple—a possible priestess, a possible High Priestess as events had proved—temple girls did sometimes leap the wall, take lovers, have babies. . . . Now there was no chance; Fredi's love was hopeless.

And he was honest enough to admit that when she was Lori Jones, she would probably never have been more than a Jan Wilson to him. A High Priestess had glamor—no woman had more. By virtually ceasing to be a woman, the High Priestess became woman incarnate, unattainable, and therefore infinitely desirable. And, paradoxically, his own religious leaning had played a part in leading him to this great sin.

Now was the time. She stepped forward and Preacher Peter crossed himself. Then, also moving forward, he crossed the High Priestess too—and in doing so, he deftly brushed the two wide straps from her shoulders. The white gown slowly slid to the floor.

A faint sigh rose from the audience. Mary was pure. The Sun never saw her body. There in the Temple of God, a thousand people saw her body—not brown, not even pink, but creamy-ivory. It was ethereal, not earthly, certainly not earthy. It had the perfection of a statue, the clean lines of a statue, the smoothness of a statue. The pale nipples were tiny and only faintly pink.

She stepped around the gown and stood before the preacher. The ritual began.

Fredi wondered at the paradox that the Virgin Mother of the Sun must never see the Sun; that while all the rest of them (except Preacher Peter and the other priestesses) were about to go out into the Sun on this Sunday, she would never feel its warmth on her body again. But of course religion was full of paradoxes. Perhaps the logic behind it was that if the Mother of the Sun were to give herself to the Sun, it would be incestuous.

"Yes, I am pure."

"Yes, you are pure. The sacred knife will prove to all that you are pure, that the Temple is pure, that the World is pure, that the World is still the World of God."

Preacher Peter must be a fair pre-stidigitator, Fredi thought professionally. You never saw where the sacred knife came from. Some of the more devout worshipers swore that it came into his hand by a miracle, but there was nothing said about that in the Word of God.

Peter held the knife firmly in both hands, point downward, over Mary's left breast. There was a click and a faint hum of machinery.

The circular panel on which she stood revealed itself to be a moving pedestal. As it rose toward the knife, she sank to her knees; then she sat on her heels; although the knife did not move, the rising pedestal pushed her steadily toward it. And as the pedestal rose, it turned. Mary had begun the ritual with her back to the congregation. Slowly her body was revealed in profile.

The knife, never touching, was no more than two inches from her. Sitting on her heels, she had to arch backward to avoid it, her arms above her head as the pedestal continued to rise and turn. Her hands and her long hair touched the floor. Her breasts pointed straight up, now only an inch from the knife. Below her tortured rib cavity her belly stretched taut. And still the sacred knife was over her, and still the pedestal rose.

Six months earlier another High Priestess had died silently as the pedestal continued to rise. And within the hour the preacher had died by the knife; the eleven other priestesses were dead by the knife; and later a hundred criminals died by the knife—until God was appeased and the knife took no more.

And the world was once again the World of God. . . .

Today, however, the pedestal stopped rising. Mary's head was on the marble, her body racked like a violin string. She could go no farther.

Then the knife disappeared and she raised herself to a kneeling position, her arms high, as the pedestal retraced its travel. Finally she stood up and stepped back into the pool

of her gown. A priestess moved forward and raised it to her shoulders.

Not a word was spoken. The ceremony was ended, and all was right with the World. . . .

* * *

The thousand people left the Temple—but they did not go home. It was exactly noon and the hot Sun was directly overhead.

The crowd spread out over the vast forecourt of the Temple. There was no ritual involved, no particular organization; everyone simply found himself or herself six square feet of space.

Then all of their clothes came off. They stood, they sat, they squatted, they lay full length. It did not matter. They were one with the Sun.

After five minutes—five utterly silent minutes—some got up, put on their clothes and went home. Some stayed, spreading themselves as their neighbors vacated their spaces. Others sought friends and relatives.

Jan Wilson came upon Fredi from behind. He was starting to put on his robes but she said: "Leave them. Come with me."

And nude, they ran into the woods together. At first there were many couples clustered around, the impatient and lazy ones; then, the farther they went, only a few; and finally none.

It was pleasantly cool under the trees but they had to find at least a sunray. It was Sunday, the day of the Sun, and they did not have the excuse that the sky was overcast. The Sun was there and it was a sin to hide from the Sun.

Jan found a grassy bank beside a pool and lay down on it, full in the Sun. She looked at Fredi expectantly—and he rebelled.

"No!" he said violently. "Ritual love is not love. It's only very ordinary, very uninteresting sex."

"Even when the Sun demands it?"

"The Sun doesn't demand anything and you know it."

"This from you, Fredi? You, the little priest?"

"The Sun doesn't demand it," he insisted.

"Maybe I'm wrong . . . I thought this was Sunday."

"You know perfectly well that all Sunday means is that a man who wants a girl has an edge. She thinks she shouldn't say no. She thinks if she says no, she's sinning in some way. You know that—"

"I know that you've just been lusting after the High Priestess."

It was suddenly very still. Fredi knew—the moment it was too late—that he should have laughed incredulously.

The Temple was the law. The Temple judged. He was in no immediate danger of feeling the sacred knife, but he might someday go on the list. Then, if the High Priestess proved false and God struck, and the eleven other priestesses also died, and all the more serious criminals in addition—and if God was still not appeased after that, he might find himself. . . .

Jan was smaller than the High Priestess but that was not the major difference between the two. She was brown, brown all over, and anything but ethereal. Nude, she was earthy. Very attractive, but ear-

thy. In fact, she was at the moment literally earthy, having rolled in the soft soil and become dusty and muddy. She was also sweaty. Although this did not make her a whit less desirable, it did make her a lot less like Mary.

"So?" he said.

"So since you can't have her, you might as well. . . ."

"That isn't what you were going to say."

"No. And it's not what I'm going to say in a minute. Meantime, before the Sun shifts off this soft, grassy bank and we have to move into that bog over there, what about it?"

He did not really have to force himself; at times he had thought he was almost in love with Jan Wilson. The main drawback was that they shared so little in common. Whenever he felt particularly tender, she would be coarse; furthermore, she seemed to have absolutely no feeling for art.

Afterward she said: "Let's bathe. I know you think I'm a peasant and you're a great artist, but you're wrong in a lot of things, Fredi. I'm too intelligent to be a peasant, you'll never be a great artist, and I've always known a hell of a lot more than you've given me credit for."

The profanity was no shock; the meaning of her words was. And without giving him time to recover, she went on deliberately: "For instance—you don't know it but fundamentally, despite your religious aspirations, you're a Realist."

The charge was so serious that this time he had to react. Besides, it was completely untrue. "You're

crazy. I never in my whole life came anywhere near—"

"I know you never came anywhere near—in all twelve years of your whole life. Oh, yes, I know you're twenty-four, Fredi, but since you manage to live at only half the speed of most people, you're really only twelve. While I, officially nineteen, must be at least forty. Forget it. Let's bathe."

They jumped into the pool and swam for a while, then emerged and lay on the bank, letting the Sun dry their bodies.

And now Jan was pretty—clean and brown and smooth all over. Fredi toyed with the not-very-original thoughts that a girl who was small was not therefore less attractive than a girl who was tall, that brown skin in itself was no less beautiful than cream-ivory, that the nude Jan was not less nubile than the nude Mary. He wanted to make love again and his hand slid under and around her small waist to draw her to him.

"As I said, you're a Realist," she observed coolly.

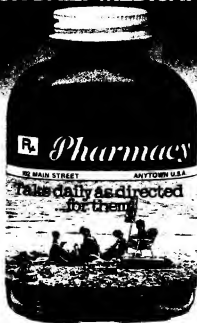
He took his hand away. Cool water had not extinguished his ardor. Cool words did.

"Which gives us something in common," she added. "More than you knew, Fredi? Listen and I'll tell you about the Realists. About them, about me, about you, about us."

"I am not a Realist," he said firmly. "You're crazy."

"I'm not crazy and, yes, you're not a Realist—but only in the sense that you don't know it yet. You have to understand that whatever else you are, do and think, your merely wanting to possess the High

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Pricstess makes you a Realist."

He was silent, wondering why she had never talked this way before. Without his having to ask, she told him.

"Until today I didn't think you would ever be of any use to us. But now I see how you could be. First, though, let me tell you about the

Realists. We're not against religion, not against the Temple. But it's corrupt. We're against the way it's taking over everything. That's corrupt. You've heard the saying, 'Power corrupts, and absolute power corrupts absolutely.' Well, the Temple is well on the way to taking absolute power for itself. You know that."

He relaxed a little. "Theories. If

you want to talk theory, I don't mind."

"I'm not talking theory, I'm talking fact. A hundred years ago the Bible was open to all. Now nobody gets to see the Bible and the preacher reads only selected passages. How do we know he isn't making them up? And lately not only the Bible but a whole lot of other books have been withdrawn. It's going on all the time."

Fredi did not care. For a moment he had thought she was threatening him, trying to blackmail him into marrying her or into something else he did not particularly want to do. But here she was talking calmly and reasonably, calmly and reasonably trying to involve him in something that would—eventually—make an appointment for him with the sacred knife.

"Let's go back," he said abruptly.

"We can use you, I said. We'll help you and you'll help us. We'll help you reach the High Priestess."

He was, after all, crazy—and he knew it. Suddenly he found he was listening very closely. Hitherto he had taken it for granted that his love was hopeless.

If it were possible—if somehow he could one day possess the High Priestess—then the threat of a date with the sacred knife seemed almost irrelevant.

Jan was going on, rapidly and eagerly now: "Can't you see, Fredi, what it would prove if you became the High Priestess's lover and nothing dire happened? Everyone but the Realists *believes* in that twaddle Preacher Peter was spouting. The Temple has taken the power it has

and it will go on taking power until the Realists get ahold of something big and come out in the open and say, 'Lo and behold, the Temple is only a man-made building, the preachers are only men and the priestesses are only women. The Virgin Mother of the Sun is only Lori and she's no virgin, and the sacred knife' doesn't know a thing about it—"

"I shouldn't listen to this."

"But you are listening, aren't you? Fredi, we need to do something like this. All books tell a little of the truth. Now that truth is being systematically destroyed. Even just a few years ago there were books that said we came to this world from another world, a world called Earth . . . but that doesn't square with the Temple's line that we're the Chosen, the only people living on the only world. The Bible had already been taken from us because it was about a planet that was not this planet, and if people were allowed to read it, they would be able to figure that out. . . ."

But Fredi was no longer listening. The idea of becoming the lover of the High Priestess had inflamed him; death did not matter if only he achieved that. What difference if the preachers rewrote history and said the world was the only world and destroyed a few books? He was an actor, not a scholar.

In full flow, Jan suddenly stopped and sighed. "You have your own defenses, Fredi, haven't you? One thing I've said has interested you, only one. The rest—"

"Yes, the rest. Tell me one thing that shows you're right and the Temple is wrong. One thing that

shows we really did come from somewhere else—"

"Certainly." She stood up and pointed. "Look over there. And there. The ruins."

"The ruins? What about them?"

She looked at him pityingly. "They're not ruins, Fredi. Anybody can see that. Even you can see it if you look. The Realists saw it and that was what made them Realists."

"If they're not ruins, what are they?"

"Well, in a sense they're ruins but—"

"Then what are you talking about?"

"Ruins of ships. Vast ships. So vast the Temple can't get rid of them. All the Temple can do is to say they're ruins—*our* ruins, ruins of a previous culture on *this* world. But go and look, Fredi. Look at the tubes and rusted dials and engines and air pipes. They can't possibly be the ruins of houses or any kind of static building. They prove that we came from somewhere else and that this world is not *the* world."

He did not know what to say. Her words sounded true . . . but did it really matter that much?

She sighed again. "Okay. I'll stick to the one subject that turns you on—that of how you're going to become the lover of the High Priestess."

"How?"

"Well, in the end it's up to you, Fredi. Rape is no use. It proves nothing. She has to be willing. Well, I knew Lori Jones a little. Silly, priggish bitch. Vain, shallow, always certain she was somehow better than other people but without anything to back it up except that she

was under the umbrella of the Temple. Yes, you could win her. You're too handsome by half. Flatter her, say loving words to her. You could manage that bit in your sleep. So all you need is opportunity. And that's what we'll give you."

* * *

The next day, Monday, was a very different day. There was no mass surrender to the Sun, which shone just the same. People who sunbathed on a Monday, if they were lucky enough to have the time, were expected to keep some clothes on just as on Sunday they were expected to remove them all. Only Sunday was the day of the Sun.

Fredi, at rehearsal for *Macbeth*, in which he played Macduff, was sent to the library to check on a technical point. He was not a star. His good looks and a fine speaking voice were his main talents.

At the library, having finished his chore, he paused.

Was someone tampering with the ancient plays as well? Now that would concern him; drama was his profession and the new plays were gutless. In Shakespearean or Shavian productions there was always something to get your teeth into.

Vaguely he remembered a Shakespearean play about a king, Richard II or Richard III—a king of a place called Angland or England. There was an impassioned speech about "this sceptered isle, demi-paradise, this other Eden." Evidently it was quite a place. Yet there was no Angland or England in the World.

He checked the list. *Richard III* was there but a quick glance showed that this was the wrong play. It must be *Richard II*.

But there was no *Richard II*.

By delayed action he was staggered. Could a Shakespearean play have been kidnapped, done away with, simply because a passage in it was inconvenient to the Temple?

Impossible!

Yet not impossible. The library was under the direct control of the Temple. The preachers were never seen at the library; but then, the library was wholly theirs when it was closed to everyone else.

Looking through the microfilm spools, he realized for the first time how easy it would be to cut passages out of anything that was on microfilm. In the case of bound books, such deletions would show; but most of the books had disappeared. Microfilm was better, cheaper, longer-lasting.

And with that thought he looked more closely at the recent renovations in the library and saw with further shock that while there was more space and the arrangement was more convenient, it was simply because there was less material in the same area.

Books had been printed and still were being printed. You could take a book home, but not everyone had a microfilm viewer. Now that he looked around the library with new vision, he saw that nearly all the books were new, the older ones having been transferred to microfilm.

And microfilm could be censored in a matter of minutes—leaving nothing

to show that any tampering had been done.

Behind him a voice said, "Can I help you? You seem to be looking for something."

It was one of the librarians. She was about the same age as Mary and Jan but there the resemblance ended. They were beautiful girls, in their different ways; this was just a girl.

He began, "I'm from the theater—"

"I know, she said eagerly. "You were great in the play last week. What a pity you were killed in the first act."

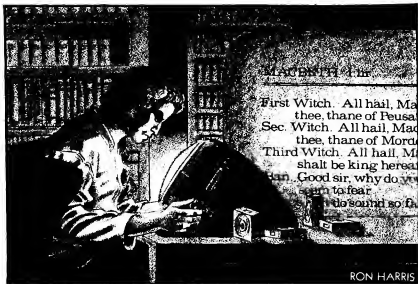
"Next week we do *Macbeth*," he said boldly. "Some of the texts we have seem to differ slightly. Could I see the oldest, most authentic text you have?"

She looked at him strangely and he realized that if something not quite right was going on at the library, she would have to be pretty dumb not to know anything about it, whether she was directly involved or not. But all she said was, "Of course."

At the viewer, Fredi—who knew *Macbeth* by heart—took a new look at the play.

It was odd that in Scene II the text established the fact that Duncan was the king, but not what he was the king of. And then in Scene III the first witch said: "All hail, Macbeth! hail to thee, thane of Peusa!" The second witch said: "All hail, Macbeth! hail to thee, thane of Morden!"

This was strange because in the upcoming production—scheduled to be staged in just a week—the witches would exclaim exactly the



same words except that the two places mentioned were Glamis and Cawdor.

No one knew precisely what a thane was but that did not matter; it was obviously some sort of a minor nobleman. No one knew what or where Glamis and Cawdor were, but everyone knew Peusa and Morden. They were areas not more than five miles from the Temple.

So the text had been changed to make the setting local. Nothing much in that . . . except that this was supposed to be the earliest, most authentic text, and it clearly was not. The puzzle was: Why did the theater have an earlier text, and why was it allowed to use it?

But that was not really much of a puzzle. The Temple moved slowly and silently in the shadows. Next week two old words would be spo-

ken, Glamis and Cawdor (places on Earth?), but the next time *Macbeth* was produced, the more *authentic* text would prevail. Glamis and Cawdor would be replaced by Peusa and Morden. If anyone queried the change, it would be blandly affirmed that recent research had shown Peusa and Morden were either what Shakespeare had originally written or what he had really intended to write.

It amused him to find that in Act II, Scene 3, when Macbeth said: "Still it cried 'Sleep no more!' to all the house: 'Glamis hath murder'd sleep, and therefore Cawdor shall sleep no more; Macbeth shall sleep no more'"—the words in the text remained Glamis and Cawdor, when they should have been Peusa and Morden.

The Preachers of the Temple had

missed that. They were not infallible.

* * *

The Realists, it seemed, were. Two nights later they took him to a walled garden, telling him that Mary would be there, and alone. Since she could never see or be seen by the Sun, she took the air by night in the garden. She was unguarded because no one was supposed to know of her presence there and, further, the wall was meant to be unscalable.

But the Realists knew she would be there, and their extending aluminum ladder and the rope for the descent on the other side reduced the wall to a mere inconvenience.

At the last moment Fredi had fears, doubts, and an abrupt failure of self-confidence.

"This from you, the great lover?" Jan asked sarcastically. The two men had not spoken, leaving all the talking to her. "Surely snapping your fingers will be more than enough?"

"Suppose she screams?"

"She won't scream."

"How do you know?"

"I didn't want to tell you anything, but since you've got cold feet, Fredi, I may as well—it's all set. Just get in there and shoot your line. It will work. You're on a sure thing."

"You know something I don't know?"

"That's the understatement of the century. I know a hell of a lot of things you don't know. In particular—I guess I have to tell you this too—we managed to get a

word of prophecy whispered into Lori's ear. She's going to meet a handsome stranger in romantic circumstances. She'll be looking for you, not really expecting you to show but her little heart fluttering in case you might . . . I told you she's a silly bitch."

Nonsense, Fredi thought. Mary was beautiful and you could see that her beauty was only the lovely surface of a nature of immense depth and purity.

"Just one word of advice," Jan said, "though heaven knows you shouldn't need it. Don't go all out for the jackpot at the first meeting. Be romantic. Touch her—hell, yes—but be gentle. Make her want you, not the other way around."

"Oh, I know all about that."

"Yes, you do, don't you? Even if it's the only thing you know."

He was young and active. Scaling the wall and lowering himself silently on the other side was an easy job.

He wore silver trunks and a long, dark cloak. Jan had chosen the costume for him, rather cynically. "You'll need a black cloak because we don't want you to show up glowing like a beacon. But you have to be the knight in shining armor too. And this is the kind of scene where you have to be half naked and your lady love has to be fully dressed—you have to be sexy and make her go for you, not the other way around. . . ."

Nowhere could it have been easier to hide. The garden was full of trees, shrubs, bushes, huge tropical plants. It also had a maze of paths. And, of course, a pool.

"Get her away from the pool,"

Jan had said. "Get her into the shadows. If you can't see a window, nobody behind a window can see you."

And true enough, there Mary was, seated by the pool, wearing the obligatory white robe.

Six feet away from her, hidden in the bushes, he said softly, "Well, it was worth it."

She turned, startled.

"Please don't do that," he said conversationally. "Somebody might be watching. Why not just get up casually and wander into the bushes for a stroll?"

"Why should I?"

That wonderful voice. "Well, I can see you. If you don't want to see me, you're not a real woman."

"You might . . . harm me."

"Then you can scream and people will come running. But why scream until you know whether you want to or not?"

She stood up, looked around the garden and moved slowly toward him.

When he touched her, it was from behind, and gently . . . but he held her firm when she tried to turn around. "I could be ugly," he said softly. "I could be old and fat."

"You're not ugly. And you have a beautiful voice."

"No, I'm not ugly. But compared with you—"

"You think I'm pretty?" The question was coy, banal, so ineptly arch that Fredi winced. Nevertheless it was an invitation, and that was what he was looking for.

"No, you're not pretty at all. You're so incredibly lovely that I had to speak to you, no matter what happens."

His own words were not particularly poetic either but he meant them, and his ringing sincerity did not fail to make an effect.

He released her and they faced one another there in the luminous night. . . .

Ten minutes later, no more, he climbed the rope and descended the ladder. The two men hurried away with them. Jan took him at least two hundred yards from the wall of the Temple gardens before asking: "Well?"

"Yes."

"What do you mean, yes?"

"All's well. What a wonderful girl she is—"

"Never mind that. What did she think of you?"

"That's all right."

"You came away pretty soon."

"I had to. I had achieved, I think, the maximum effect. If I had stayed longer . . . but you don't understand these things."

"I understand too well, you mean. You made another date?"

"No. But she'll expect me."

"Good enough. Now are you frustrated enough to cast your pearls before me?"

"No," Fredi said serenely. "I love Lori; I told you that. I can't love anyone else."

"So she's Lori now. How did that come about?"

"It was mainly her idea but I went along with it. I think the theory is that as Mary she couldn't possibly speak to me and certainly she could not let me kiss her, but as Lori—"

"I get it. Okay, you seem to have things in hand . . . did you kiss her, by the way?"

"On our first date?" Fredi exclaimed, shocked. "And she the High Priestess?"

Jan was silent for several seconds. Then she said, "Sometimes, Fredi, I get the uneasy feeling that you're not such a fool as you look."

"Who is?"

* * *

It puzzled Fredi that the meetings were arranged so easily. Night after night he spent an hour with the High Priestess in the Temple gardens. It was all so simple, and no one ever came near them.

Jan, when he mentioned the matter to her, said coolly, "Well, why not? The High Priestess is something big on Sunday but the rest of the week she's just a silly girl, still just Lori Jones, whom nobody bothers much about. Who cares if she's sitting in the gardens or having a bath or admiring her own boobs and belly or trying to read a book?"

And on Saturday night Fredi felt that it was time. He had flattered Lori—as Jan and his own instinct had told him to do—and she had thawed and met him at least halfway, wanting to believe him, finding him an overpoweringly romantic figure, yearning to love him and be loved herself.

All the time, however, she remembered that she was the High Priestess. When Fredi's fingertips touched her as Preacher Peter touched her, when his hands were cool and gentle, she guided them willingly but without sexual response. There was something in the

Bible about the "laying on of hands." It was right, it was wholly innocent, that he should touch her face, her arms, her shoulders, even her breasts, waist and hips, as long as his touch was tender and worshipful, as long as she kept his touch tender and worshipful. And Fredi, reading her right, touched her as she wanted to be touched.

They even—one night when it was so dark they could not possibly be seen from any window—swam in the pool, and Fredi's touch this time was on bare flesh. He deliberately kept it, however, the same cool, innocent touch, accustomizing her to being naked with him and still pure, as pure as when the robe slid down her body in the Temple and thousands saw her and no shadow was cast on her purity.

On Saturday, therefore, it meant nothing unusual when they stood together in one of the sheltered clearings they now knew so well. Their clothes had been left behind. But this time Fredi's words were more personal and his touch more questing, more insistent—for the first time like that of a virile young man touching a nubile young woman.

"It has to be," he whispered.

"No," she said, not responding.

"All along you've known it. I've waited, and now you know that all I have ever said to you is true. I've proved it by my patience."

"Nothing we have ever done or said has been wrong. But now—"

"Now if we don't acknowledge our love, it has all been a lie."

His touch, still tender, was no longer cool. It demanded, and she fought not to answer yes, not to an-

swer at all—and failed. Her breasts grew to touch his; her arms, trying to keep him away; drew him to her; and her lithe belly, straining away from him as in the climax of the Sunday ceremony, suddenly ceased to be the hard, tight belly of a High Priestess or a marble statue and became the warm belly of a woman.

"No," she said, and in the same breath—half a breath, half a gasp—"Yes, yes."

* * *

Fredi did not want to go to the Temple. Neither Jan nor any other Realist had said anything to him beyond brief words of satisfaction that—as they put it—he had rung the bell. He had no idea of what they intended to do in the Temple but he remembered what Jan had threatened to say: "Lo and behold, the Temple is only a man-made building, the preachers are only men and the priestesses are only women. The Virgin Mother of the Sun is only Lori Jones, and she's no virgin, and the sacred knife doesn't know a thing about it."

The last phrase meant that at least the Realists were not going to raise a stir until the last part of the ceremony was over; it also strongly suggested they would indeed *then* do something, and Fredi was uneasy about it.

It was all very well to say that if he won the High Priestess, nothing else mattered. Today it was a different situation. Perhaps last night, at the height of his passion, he would have shouted his agreement, his willingness to die rather than draw back . . . but today he was

alive, and he wanted to stay alive.

As usual, he was near the front of the Temple, where Mary (today she was Mary) would be. He did not know where Jan was. He never went to the Temple with Jan, although she invariably sought him out afterward. Would she do that today? Would she expect him to make love to her today? He shied away from the thought and concentrated on the service.

Today Preacher Paul was in charge. He was a small man, lacking the presence of Preacher Peter; the big, rolling words in his mouth did not sound nearly as impressive.

"And I say unto you, in the Word of God in this Temple of God in the World of God, the Sun is most wondrous, the Sun of God gives us life, praise the Sun of God. . . ."

Suppose, Fredi thought with sudden hope, that Mary, like Preacher Peter, did not appear today. It was rare for the High Priestess not to play her part in the ceremony. There were twelve preachers, but only one High Priestess. On the other hand, there were eleven other priestesses and occasionally one of them stood in for the High Priestess.

Should that happen today, Fredi's vague feeling of uneasiness would be dissipated and he could go on living from day to day with little or no thought of the morrow. As long as Mary did not appear, it was reasonably certain that the ceremony would be uneventful.

Suddenly the priestesses entered through the pillared arch—and leading them was Mary. At the sight of her Fredi could scarcely restrain

himself from shouting above Preacher Paul's pale voice, although what he would have shouted he did not know.

At the same time Fredi relaxed a little because Mary was as serene as ever; he had to remind himself by concentrating hard on realistic details that the events of the past week had actually happened, that today was not a week earlier. Even then it took a glance at Preacher Paul—not Preacher Peter—to confirm that this was, in fact, another Sunday.

Mary led the singing of "O God our help in ages past" and then, as usual, sang the last verse alone:

If ever I forget the way
To live the sacred life
I trust and pray that on that day
I feel the sacred knife.

Fredi's emotions were in turmoil. He did not know if he loved her. He did not know anything for sure.

Certainly Mary was not in turmoil. Possibly as a woman in love, she felt completely sure of herself, sure of him, and sure that their love was not a mortal sin. But . . . was it a mortal sin? Could it be so right for him to leave the Temple and take part in pagan, erotic Sun rites with Jan, and so wrong for him to make love with the High Priestess six days later?

Was she serene because she had decided with calm certainty that she could be Mary, High Priestess and Virgin Mother of the Sun, and at the same time Lori Jones, passionate lover of actor Fredi?

She stepped forward and Paul crossed himself. Then he crossed Mary. Not as deft as Preacher Pe-

ter, he fumbled while brushing the white straps from her shoulders and had to do it again.

As Lori's slim, ivory body emerged from the descending gown, Fredi felt a pang of jealousy that thousands of others were seeing the lovely body that was his and only his. The feeling was gone at once when he reminded himself that this was Mary, not Lori. Mary belonged to everybody and nobody, but Lori belonged to him. And later, not on Sunday but tomorrow, in the weeks ahead, she would be Lori again.

The sacred knife emerged, but not with the panache of Preacher Peter.

Mary was on the plinth. It moved as before, and as before she dropped slowly to her knees and then began the slow, agonizing stretch backward, the plinth turning and the knife remaining just above her left breast. Back she went, the long hollow below her ribs lengthening and deepening; yet as her belly stretched, her breasts seemed to grow, straining toward the sacred knife. It was all over in an instant. No one was able to say afterward whether the plinth suddenly rose, whether Paul stumbled or whether Mary rose spasmodically to take the knife. However it came about, the knife was in her heart and then, red and dripping, it remained poised in Paul's quivering hands as she slid back, silent, her eyes beginning to glaze in death.

Preacher Peter would have retained his dignity. Preacher Paul let his shock, horror, anguish and terror show. Yet he knew what he had to do and he did it. Before Mary was dead, he himself was dying,

the knife plunged into his own breast and remaining there.

He slumped and would have fallen over the body of the High Priestess but for the fact that the plinth was still high and he was not tall. He slid down its side and preacher and priestess made a grim yet somehow beautiful tableau, the lovely woman dying on the still-moving plinth, one arm drooping from it, the man in the robes of the preacher at her feet. . . .

Such moments were supposed to command complete silence . . . but of course such moments were not supposed to occur at all. The temple trembled when the High Priestess proved wanting; the whole World of God trembled. It was a dark day and the best that could be hoped for was that something good would come of it.

There was now complete silence. The eleven priestesses knew that they must also die. The congregation knew that they were as good as dead, that their suspended sentences were now active convictions and that there was no escape.

It was chaos.

* * *

How much time passed Fredi had no idea. The priestess and the preacher lay dead now. The plinth had returned to its place and no longer moved.

Many had gone; indeed, most had gone. But the Temple was by no means empty. While the reaction of some, the majority, was to flee the scene of horror as soon as possible, the reaction of many others, nearly a hundred, was to stay rooted to the

spot, staring and praying.

There was a touch from behind on Fredi's shoulder. Jan, naturally. And then a voice that was not Jan's.

"I can see how deeply this has affected you. But life must go on. The Word must go on. Actor Fredi, your devoutness has not gone unnoticed. There will have to be a new Preacher Paul. Come with me, Preacher Paul."

Fredi turned, stricken. It was Preacher Peter.

Fredi could not think clearly and, therefore, wisely he did not speak. He knew that while the priestesses were nurtured under the protection of the Temple—Jan, for instance, could never be a priestess—the preachers had all been men of the World. They were chosen at times of crisis.

He was Chosen.

The irony of it did not occur to him. To cease to be actor Fredi, to become Preacher Paul, seemed eminently reasonable. He could not understand why he had not expected it.

He would preach the Word in the Temple of God in the World of God. He would be a good preacher, a better preacher than he was an actor. He was trained for this.

Jan and the Realists were defeated. Some of them would have to die. But he would not die, not now. He would serve God.

And if in the future, on a Sunday when he held the sacred knife, some High Priestess died as Mary had, he would die too, and perhaps that would be ultimate justice. In the meantime, he would serve God. ★

A SCIENTIFIC FACT

Jack C. Haldeman II



Too much TV-watching causes more than. . . .

CARL WAS WALKING down the street when he came unglued. It was a most curious event. Preceded by a lifetime of near-normal behavior, it was all the more surprising. He had been on his lunch break, heading down to Pop's for his usual corned beef sandwich and short beer when he fell flat on his face. He kept repeating the word "drugstore" as he lay on the sidewalk. "Drugstore, drugstore, drugstore," he said. It was the word he had been saying when he fell down. He was stuck there. "Drugstore, drugstore, drugstore," he said until they came and took him away to a hospital with soft padded walls. His family was stunned, the neighbors talked about it at great length. His mistress was crushed; she had been with him when he fell. She was the only one who would make the long drive out to visit him. He never recognized her. They labeled him schizophrenic and threw away the key. She drove hours just to sit by his bed and talk to him. "Drugstore," he would say. "Dammit," she would say. Actually, he wasn't schizophrenic at all.

Dr. Moore was in the middle of a complex surgical procedure. He had trained at Johns Hopkins and was very good at this particular complex surgical procedure. People came from all over the world to have him carve up their bodies. They had lots of confidence in him and his Johns

Hopkins training. "Retractor," he said to the nurse. As the nurse started to put the retractor in his hand, he dropped the patient's kidney on the floor. "Retractor, retractor," said Dr. Moore. "You *have* the retractor," said the nurse, picking up the kidney. She was worried. This was going to be hard to explain. She was afraid of a malpractice suit. The patient was very wealthy and his kidney was covered with germs. If he lived, he wasn't going to be very happy and if he didn't, his family wasn't going to be very happy. Nobody was going to be happy. "Retractor," said Dr. Moore. He looked like he was about to fall down. She dropped the kidney back into the patient and walked out of the operating room. She had always wanted to be a ballerina.

Crazy Joe Wobbles was a disc jockey and he was already crazy. He had a habit of doing strange things on the air, but as long as his ratings held, the station would leave him alone. Once he had played ten solid hours of Alka-Seltzer commercials. His fans went wild. Teen-age girls throughout the city wore t-shirts printed with his picture. "I Love Joe Wobbles" it said across their tiny breasts. He was as crazy as a bedbug and the most popular radio personality in the 12 to 16 age group. The station tolerated his weird behavior because the 12 to 16 age group had more money to spend than their parents. He had locked himself in the broadcast booth and was playing Bob Dylan records backwards. He had been in there for five hours when his mind boggled. Any sane man would have cracked

in two. "Dylan's biggest hit, hit, hit," he said. "Hit, hit, hit," he continued. It was 45 minutes before anyone noticed anything unusual. "Hit, hit," he said. They tried to unlock the door and found that he had bolted it from inside. They tried to cut the power but found that he had bypassed the main systems. Crazy Joe was also paranoid. "Hit, hit," he said and 50,000 watts of listening power blasted him for miles. His ratings soared, everyone was tuning him in. Turning on Joe Wobbles became an instant fad. At night you could pick him up as far away as New Orleans. It was a gas, and the station didn't try quite as hard to cut him off. It was three days before a man from the FCC kicked down the door and pulled the plug on poor Joe. His eyes were bloodshot, his voice reduced to a whisper. "Hit, hit, hit," he whispered as they carried him out.

Pretty soon there were so many people being hauled away that they ran out of places to haul them away to. It was very confusing. People all over the country were snapping like twigs, running amok at the drop of a hat. It was getting so that you couldn't go anywhere without running into a couple of crazies.

Something had to be done.

That was when Dr. William W. Williams arrived with his little green box full of 3x5 cards. They thought he was crazy, too. These same people would have laughed at the Wright brothers. It was a long time before Dr. William W. Williams could get anyone to listen to him and when he did, it wasn't anyone important. However, this particular assistant to the assistant saw

through the rumpled clothing, the wiry hair, the scraggly beard and thought he detected a glimmer of truth in what the old geezer with the green file box full of 3x5 cards had to say. So the assistant to the assistant sent Williams and his cards upstairs. *Better than nothing*, he thought, and moved some more papers around.

Upstairs, Dr. William W. Williams turned on the charm. He flashed a big smile and started right in on his scientific explanation of the Loonies.

The secretary was unimpressed. She popped her gum and pressed a button on her intercom. Old Bill had made another mistake.

"A crackpot here to see you," she said into the little box on her desk.

"Send the crackpot in," the little box said back to her.

Actually, Dr. Williams had arrived at the right place at the right time. The person he was going in to see was one Arthur J. Woods, assistant to the head of the P.C.L.—Presidential Commission on the Loonies. He had just come back from lunch and four martinis on his expense account, so he was perfectly happy to sit back, smoke a cigar and listen to what Old Bill had to say.

"I have a theory," said Bill.

"Everyone has a theory," said Mr. Arthur J. Woods.

"But mine is based on a scientific fact."

"That's different? What scientific fact?"

"The fact that you can't get ten pounds of fertilizer into a five pound bag."

"That's news?" He puffed on his cigar.

"Look at this." Williams placed his green file box on Mr. Woods' desk. "This is a human brain."

"No it's not. It's a green box."

"Use your head. Imagine it's a brain."

Woods frowned and scratched his nose. Williams pulled out a bunch of blank 3x5 cards and put them on the desk.

"These are pieces of information," Williams said, indicating the cards.

"They look like 3x5 cards to me."

Williams rolled his eyes and sighed.

"The box is like a brain," he said, stuffing cards into the box. "Just as there is a limit to the number of cards you can fit into the box, there is a limit to the number of pieces of information you can fit into a brain. They both get full. See?" He held out the filled box.

Woods took it and tried to put another card inside. He couldn't.

"That's one full box," admitted Woods. "But why would this be happening now? We ought to have seen this particular effect before."

"The idiot box." Williams' eyes were gleaming. He was getting through.

"You mean the tube?"

"Exactly. You may not realize this, Mr. Woods, but television is produced by a rolling scan of some 525 lines thirty times a second. Although the conscious mind connects all these separate images into continuous action, somewhere, deep in the brain, all these separate images are counted, stacked up and filed

away. Soon we are all filled up like the box! And us . . . aha!"

"Aha?"

"Us. We are the first generation to be completely suckled from the teat of the tube. We have a lifetime of images stacked up one on top of the other. We are filled up as no other generation has ever been. There is no more room in the boxes of our brains for any more 3x5 cards."

"Maybe just a couple?" asked Woods, but he already knew the answer.

The wheels of the nation can move pretty fast when they're pushed and the crush of Loonies was pushing things pretty hard. Within a week, the battle plan had been worked out.

The President would have to go on TV to tell everyone that they couldn't watch TV anymore. It might work. He was a fairly popular president, it was possible he could pull it off. There'd be a lot of opposition, but he had faith in Dr. Williams W. Williams' little green box and stack of 3x5 cards. He had them right beside him in the television studio. They were just props, though. The P.C.L. had prepared an excellent film explaining the Loonie Effect, or Tube Fever as those in the know had taken to calling it. Thankfully, the President wouldn't have to do any scientific explaining or use any big words; all he had to do was introduce the film.

Air time. The red light of the camera went on. It was just one more piece of information, one more 3x5 card sliding into place.

"Ladies and gentlemen, gentlemen, gentlemen . . ."

★

dona vaughn

SOMEONE TO TALK TO



Here we present a story that is largely "autobiographical"!

THE ECHOING SOUND of Simon Wells's footsteps on the plascrete floor of the parking garage roused the shabby black sedan in slot 3003 and it mumbled querulously to itself in Chinese.

Startled, Simon stopped abruptly and the half-dozen tools concealed in the lining of his jacket bumped painfully against his ribs. Part of him, the empathetic half of his nature that made him a highly respected and well-paid mechanic, recognized that this was a car in trouble. The darker, hidden side of his personality that made him a successful assassin shrieked that something was wrong.

His high-priced special service had never been contracted for a common import before. The flashy red sports model in slot 3004 was a much more likely candidate. All Kane had given him over the phone was the slot number and Simon wondered if there was some mistake. Or maybe—and for a moment the breath froze inside his chest—maybe it was a trap with police or insurance agents waiting for him to spring it.

The black sedan mumbled on in a doddering voice—something about a broken bowl and spilled rice. Chinese was one of the dozen languages a skilled mechanic had to

know and normally Simon was a good listener but now he was too preoccupied to follow the sedan's words. Besides, they made little sense. The brain was obviously old and wandering in time.

Simon dismissed the threat of a trap. Kane's operatives never got caught. A substantial amount of Kane's fees went to see to that. Paranoia, Simon thought. He should work for Kane more often or give up entirely this maniac switching from healer to killer. But he knew he could do neither.

"Get to work," he growled at himself. Still he hesitated, glancing nervously around the garage. Only a few cars remained on level three and of them only the sports model in slot 3004 was close enough to hear or see anything. It appeared to be dormant with front and back sensors shuttered but you could never tell for sure. Less than ideal conditions, Simon thought, but then a brain assassin seldom finds the perfect time and place.

Simon took a deep breath and approached the black sedan with the purposeful stride of a rightful owner. Up close, it looked like an even more unlikely prospect. The shutter on its left front sensor had rusted off and the sensor itself was pitted and pockmarked. The poor

thing was half-blind as well as senile. The auto insurance couldn't possibly bring enough to cover Kane's fee. The owner must be crazy.

He addressed the black sedan in Chinese. For a moment it perked up like an old dog that thinks it hears its master's voice and then it sank back into its rambling conversation with itself. Simon sighed and reached into the lining of his jacket for his tools. It wouldn't take long and in this case it would be a mercy killing rather than murder.

"Is that your car?" The voice was lush, female, and familiar in a haunting way.

He whirled but there was no one behind him except the red sports model; its sensors now unshuttered. He hastily stuffed the tools back into his jacket. This car was a luxury model with side sensors front and back. He wondered how much it had seen. "And if it is?"

"Move it," the sports model ordered imperiously. "It's in my slot. I've tried and tried to make it move, but I can't get through to it." The voice paused and then went on, softer, sexier. "Please move it. I don't want to call the security guards. They're always so rude. But I need to be in that slot."

Several things came clear at once. For one, he had been right about a mistake—the red car was definitely his victim. And two, Kane should have asked for a bigger fee. He could tell by the voice this was a Cauc brain and that meant it was insured for a bundle. In the Asian countries where populations had mushroomed out of proportion, braining a car or a soft-

drink machine seemed like luxury living compared to standing on each other's shoulders, straining for a wisp of air to breathe. But in the West Bloc, where the birthrate had fallen, life was Utopian by comparison. Cauc brains were hard to come by and the price was astronomical.

"What are you, paralyzed?" the sports model snapped impatiently. "Move that wreck!"

"In a minute," Simon said. "I've never run across a Cauc-brained car before." A lie, but he made it sound convincing—another reason he was a good mechanic. "I'd like—"

"I know." The voice was low, husky, and extremely bitter. "You want to know what a nice girl like me is doing in a place like this. That's what everyone wants to know. That's why I don't usually talk to strangers. The answer is that the only other thing I'd have been good for was chopped meat, thanks to a senile brain like your friend there that couldn't pilot a two-ton truck down his own side of the highway. Satisfied?"

"Want to talk about it?" he said soothingly, wondering where he had heard that voice before.

"Wait a minute," she said. "I recognize that smooth tone of voice. You're a mechanic, right? Did my owner have you drop by to work on me? Get me over my little fit of depression?"

"No, I—"

"Well, go back and tell him it won't work. He may have signed that trick contract with my agent but that doesn't mean I have to be happy with it. Tell him that."

Suddenly the voice clicked into

place in Simon's memory. "You're Amanda Everheart," he blurted out and then wished he hadn't because the sports model slammed all sensors shut and went completely dormant.

"Miss Everheart! Amanda! I know you're upset, but maybe I can help you."

The sensors remained shuttered. Behind him, the black sedan whined something about rats.

"Please, Amanda! I've felt every picture you ever made."

On the other side of the parking garage the lift door opened and two security guards got out and came toward him purposefully. They stopped in front of him, hands hovering suggestively over their holsters. "I.D.," said the larger one.

Simon, rattled by the sports model's identity, pulled out his real I.D., instead of Kane's carefully counterfeited fakes. The guard took it before Simon could recover and he had no choice except to stand there feeling the tools in his jacket growing heavier by the moment.

The second guard, the shorter one, waved at the sports model. "This car complained you were bothering her. Do you have authorization to be here?"

"Hey! This guy's a mechanic, Pete."

Pete relaxed visibly. "Which one's your patient?"

"I was supposed to check out this sedan." Simon forced a grin. "I think the sports model is a little nervous."

The sports model roared into life, unshuttered all sensors and backed toward them. The two guards

jumped one way and Simon flattened himself against the sedan. The sports model sped toward the exit ramp and disappeared down it with a squeal of tires.

"That brain's over the hill," the big guard yelled. "It oughta be retired."

"You want to be the one to tell Richmond Dukker his new brain's gone already?" Pete asked him.

Simon recognized the name. If anyone had enough money to contract for the brain of Amanda Everheart, it was Dukker.

"What about it, Buddy?" Pete asked Simon. "Did Dukker hire you to straighten out his new brain?"

"I'm not at liberty to say," Simon said. He winked.

They slapped him on the back and let him go.

As soon as Simon reached a freephone, he called Kane.

"What happened?" Kane yelled. "The party of the first part has called twice complaining about no results. This is the first time you haven't come through, Simon."

"The wrong car was in the slot. I've got the right one pegged. Give me a little while."

"This party wants a new man," Kane said. "I'm getting someone else lined up now."

"This customer is stringing you a line. The brain on that car is a Caucasian."

The line went dead for a moment.

"Kane?"

"A Cauc brain? Do you know what the insurance settlement will be?"

"I can guess. Maybe you want to

make a new deal with the party of the first part?"

"Damn right," Kane said.

"And, Kane, did this party have a female voice?"

"How did you know?"

"A lucky guess. Make your deal and get back to me."

"Sure," Kane said and disconnected.

* * *

His car was still where he left it. Another fifteen minutes and it would have gone on without him, following his instructions. He had bought the brain secondhand and installed it himself. It was a healthy brain, good for another five years at least with proper care. Home, he told it, and then leaned back and listened. Tonight it wanted to talk about growing up in Bombay. He had heard that story before, but he listened as intently as if it were the first time. He was a good listener, that was why he had become a mechanic in the first place. Other people's lives, other people's problems, had always overwhelmed his own. He always wound up listening to them instead of unburdening himself. Being a good listener—that was the first prerequisite for being a good mechanic. Having a flair for languages was another, because it was the non-English-speaking brains that needed the most work. People bought them because they were cheap and then wouldn't go to the trouble to learn enough of the language for proper maintenance. He thought about the old sedan. More than half the brains were Chinese, so many that the Chinese were sus-

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pected of breeding just for the sake of brains to export. Maybe that was the reason they deteriorated so rapidly. More likely, it was because there weren't enough owners with a command of Chinese and the cheapskates who bought a foreign brain wouldn't lay out the credit for a skilled mechanic. It was cheaper to buy a new brain. Simon thought angrily of the countless brains dwindling down into insanity when all they needed was someone to talk to.

But he was no better. There was a limit to how much he could absorb. Being a mechanic was like being a bottle. You could listen just so long and you were full. Then you had to do something to empty yourself of other people's lives, something to make room for your own. It was when that time came round that he took a contract from Kane.

* * *

His apartment brain told him Kane had called. Simon returned the call.

"The deal is set, but you're out," Kane told him.

"Out? Why?"

"The party asked for another man."

"Same party?"

"Same party."

So what he had suspected was true. Amanda Everheart had taken out the contract on herself. He remembered how all the stories about her had played up her death wish. It must not have been solely for publicity.

"Look, Kane, I'll do it for the

original amount we agreed on."

"You're kidding!"

"Not a bit. I want this contract."

"You got it. But do it good. I got a reputation to keep up."

"Give me till midnight."

"Just don't let me down," Kane said and gave him the address.

"Don't worry, Kane. It's as good as done," Simon lied.

He hung up and asked the apartment if it was listening.

"Sure, Simon."

"I want you to—"

"Let me tell you what happened today," the brain said and launched off while Simon waited impatiently for a pause.

When it came at long last, Simon said, "Call down for the car. I've got some unfinished business to take care of."

* * *

The gates of Richmond Dukker's mansion were guarded by the latest model mech-dogs, but when they found out he was a mechanic, they let him through without question. Amanda Everheart in the form of a flashy red sports model was in the garage.

All sensors were unshuttered and the sports model was almost trembling with anticipation. When he came in, the sensors abruptly shuttered and then Amanda thought better of it. "You!" she said accusingly. "I thought so. Well. Get it over with."

"Look, Amanda. Miss Everheart. I can get you out of this contract with Dukker. I know a lawyer who—"

"Not a chance. It's a perfectly

legal contract. It can't be broken. That's the only way Cheyney makes them."

"Cheyney?"

"Cheyney Brice, my agent."

Simon whistled. If Cheyney Brice was involved, the contract was unbreakable, all right. He handled half the Congress and three-quarters of the House of Representatives. There were even rumors that he had advised the President on an informal basis. "Why did you sign the contract in the first place? Surely you would have been happier in a less menial position."

"Wrong. What I wanted was an unbreakable contract as a Crackle Cola dispenser, but Cheyney got together with Richmond Dukker and sold me down the river. Or the highway, if you prefer." She laughed bitterly.

"You don't know what you're saying. No one ever talks to a Crackle Cola dispenser and the company won't hire mechanics to service them. It's cheaper to buy a half-senile brain and get every bit of use out of it. Those brains last less than a year."

"That long?" The red car shuddered perceptibly. "I had hoped it would be quicker."

She was really suicidal. It was no use talking to her. Simon turned toward the door.

"Where are you going? Aren't you going to do it? I've already paid you."

"There's plenty of time. I've got till midnight."

"That's what you think."

"Don't get so upset," he told her. "After midnight it won't matter any more. Nothing will."

SOMEONE TO TALK TO



Simon made and discarded half a dozen plans for getting in to see Cheyney Brice on the way to the agent's apartment. But in the end, it turned out that no subterfuge was necessary. He gave his name to the door and found Cheyney Brice had left word for him to come up.

Brice was short, bald and mad. "I want to know what's going on," he demanded as soon as his apartment let Simon in.

"Amanda called you?"

"Miss Everheart called, yes."

"All right. Miss Everheart. When you've interacted with as many pornobooth movies of her as I have, you really feel like you know her."

"I'm aware of that erroneous belief. Every other poor slob who's ever interacted with one of her films feels the same way. But that doesn't excuse your actions tonight."

"What did she tell you?"

"That you are a reporter, threatening to disclose her whereabouts. I must inform you it will do no good. I have acted under a provision of Amanda's contract and informed Richmond Dukker of your intentions." He asked the bar for a drink. It produced one in silence. "I had no choice," Brice muttered to himself.

"Look, Brice, I'm going to tell you the truth because right now I don't care what happens to me. I'm in love with Amanda and—"

"I'm not surprised," Brice said. "So am I. So is Richmond Dukker. So is every other man in the country. So what?"

"So if it wasn't for that, Amanda would be dead now."

Brice's head jerked up. "What are you talking about?"

"I'm a brain assassin. I was hired to debrain Richmond Dukker's car. When I found out who the brain was, I couldn't go through with it."

"You're a—But who hired you? Who would want to kill Amanda?"

"I think you know."

Brice looked down at the glass in his hand and then drained it in one gulp. "She made a lot of threats, but I never thought she would actually go through with it. To tell you the truth, she made a lot of attempts before, but they never—and that accident—"

"Look, Brice, I need your help. I want to save her."

"It's too late now."

"It can't be."

"Under the terms of the contract, Richmond Dukker has the option to sell her to the Crackle Cola company. He didn't want the publicity and their operation is so large he was positive she would never be traced back to him."

"So she gets what she wants."

Brice rubbed his shiny bald head. "She'll be braining an apartment for one of the executives, I imagine."

"You poor slob, don't you realize she's trying to kill herself. She wants to be a Crackle Cola dispenser. She'll last six to eight months at the most."

"They can't do that. It was a good contract. One of my best. She still has all her legal rights and unlimited credit. She's a very wealthy woman and—"

"She's a kook. She *wants* to be a Crackle Cola dispenser."

Brice went pale. "Then she'll do it," he whispered. "She's always done just exactly what she wanted."

"Call Dukker," Simon told him. "Try to stop it."

Dukker's line was busy. Simon took the phone from Brice's trembling fingers and called Kane instead. "Have you heard from your party yet?"

"Where the hell have you been?" Kane exploded.

"Working on the contract."

"That's not what my party said. She wants a new man."

"I've got till midnight, remember."

"That was the original agreement."

"You greedy bastard!"

"Can't help it, Simon. It's a big contract. She raised the price. It's a team job now. Carson and Mueller took it."

"How long ago did you send them?"

"Half an hour or so. I couldn't get hold of anybody right away. But listen, you stay away. You're out of it now."

"That's what you think." Simon slammed the phone down so hard the casing cracked.

"What did that man mean?" Brice asked, his voice trembling. "Someone else is going to try to kill her?"

"He's sent a team in. Carson and Mueller. They're good but they're cautious. I might have time to reach her before—"

"I'm going with you," Brice told him.

* * *

A Crackle Cola truck was parked in front of Richmond Dukker's mansion. Simon leapt out before the car parked, without waiting for Brice. The gates were open and no longer guarded. One of the mechs lay just inside, its legs sheared off. The brain still begged feebly for help. Simon sidestepped it and ran down the drive. Carson's car was parked in the drive. Just past it he could see Mueller and Carson fighting with two brawny men in Crackle Cola uniforms. Another mech-dog, its head blown off, lay in the open garage door. None of the brawlers had noticed him yet. He hesitated beside Carson's car. Cheyney Brice plunged past him and into the garage.

"They're not doing so hot," Carson's car told him. "Carson never listens to reason. Mueller and I both tried to tell him to go slow."

Brice came running back out of the garage, screaming like a madman. "They've done it! The ghouls have taken her brain!" He plowed into the middle of the fight and grabbed Carson from behind. Mueller whirled around and shot Brice in the head.

One of the Crackle Cola men hit Mueller over the head with a wrench and he dropped. Both of the Crackle Cola men jumped on Carson.

"Where's the brain?" Simon asked Carson's car.

"In the back seat," the car said. "But Carson's not going to get away this time."

"Let me have it and you can give Carson a hand."

"Take it," the car said and opened the rear door. "But I'm not

going to help that bastard. He never listens to me."

Simon grabbed the brain case and ran. He could hear Carson yelling for the car to come and help him, but apparently it didn't work, because the car passed him as he ran up the drive and it was empty. Carson really should have listened to it more. His own car was waiting at the gate and as he jumped in, he blessed all the times he had listened to *Growing Up in Bombay* without interrupting. After a quick look back to see if they were being followed, Simon left the escape route to the car and turned his attention to the brain case. It was relatively undamaged. Mueller must have taken it out. He probably intended to resell it after he collected his fee from Kane. A Cauc brain was worth too much to simply destroy.

Aside from her own wish for self-destruction, there was nothing wrong with Amanda. She could last for years with the proper care. As soon as he got her back to his apartment, he connected her sensors and told her so.

She said nothing.

"I know you can hear me, Amanda."

When she still didn't answer, he thought she was sulking. Then he realized that the lead to her mechanical vocal cords was broken.

Automatically he reached for the tools to repair it. Then he paused, his hand on the tool chest, thinking.

He got up and went over to the bar. "I want a—"

"The usual," the bar said. "Sure thing. You know, I remember when—"

Simon punched the override and

the bar poured his drink in silence. He took the drink back to his chair. He snapped the tool chest shut, leaned back, relaxed, put his feet on the table beside the brain case, and sipped his drink.

It wasn't right, what he was about to do, but this was the golden moment, his once-in-a-lifetime chance, and he wasn't going to let it slip through his fingers. And of all captive audiences imaginable, Amanda Everheart . . . He'd be a fool to pass that up! The faint flush of guilt was already fading, and replacing it was some stronger emotion that he could not as yet identify.

He glanced at the tool chest. Eventually he would want some feedback, would have to have it if only to assure himself that she, and he, were still sane. He would reconnect her vocal cords, but there were a few changes to be made first. For starters, he would hook up a sound sensor that would make it impossible for her to speak if he already held the floor. And a timer, so he wouldn't have to listen too long. He could see the wiring diagrams in his mind's eye. But there was plenty of time for that. Later. First there were a few things he had to get off his chest.

"I—" For a moment he faltered, waiting for the inevitable interruption, the press of someone else's life which always seemed so much stronger than his own. Then, when it didn't come, his voice flowed on swift and deep like a river of sound suddenly undammed. "I was born on the hottest night in August, 2004." ★

GALAXY

BOOKSHELF

Paul Walker

The Persistence of Vision, John Varley, Dial Press / James Wade, 1978, \$9.95.

Jaws 2, Hank Searls, Bantam, 1978, 293pp., \$2.25.

Coma, Robin Cook, Signet, 1977, 309pp., \$2.50.

Night Shift, Stephen King, Doubleday, 1978, 336pp., \$8.95.

Varley vision

RARELY HAS A collection of stories by a new talent left me as breathless with admiration as John Varley's *The Persistence of Vision*. It is his first, but it ranks with the best—*Nine Hundred Grandmothers*, *The Martian Chronicles*, *The Peculiar Exploits of Brigadier Ffellowes*; I think it is easily the second best book of the year, the first being Dickson's *The Far Call*.

In my review of Varley's first novel, *The Ophiuchi Hotline*, I said

I thought it was safer for him to publish a merely good novel the first time out, leaving readers to expect better next time. I was right. Had the novel appeared after this collection, it would have seemed a disappointment. As it is, the stage has been properly set for what seems a promising career. Even if his next novel is no better than *Ophiuchi*, *The Persistence of Vision* will support his reputation for years.

What will be the scope of its appeal?

Nothing is more discouraging than to write a rave review only to have your friends tell you that they found the book unreadable. Such was my case with the *Silmarillion*. I predict a greater popularity for Varley among sf fans, but I can sense qualities in his work that may alienate some. His stories are not exciting, but gentle, even sweet in effect. His pace is leisurely; he is not

fast-reading. His science is knowledgeable, but he is an anti-technologist in spirit, putting more faith in sex than the machine. And he is curiously old-fashioned, if in a most pleasing way. For all their freshness and originality, their modern sensibility, they gave me the impression I was reading a collection of stories from *Astounding* as it might have been edited by a John W. Campbell III, his hair long where his father's had been short, smoking pot instead of tobacco, yet still his father's son.

As Algis Budrys points out in his excellent introduction, the whole history of science fiction is to be found in Varley's work: alien worlds, technological wonders, extraterrestrial adventures; Varley has the gift to make a reader feel he or she is *there*. He has the gift to make the reader take his future as much for granted as his characters do. There is no self-consciousness about his wonders that is not shared by his characters.

For all the machines and extraterrestrial wonders that furnish his future world, it is always very human beings who occupy the core of every story. Varley's characters are not simply there to represent opposing forces or to narrate the action, they *are* the story. The opposing forces are most often within themselves; the conflict most often a struggle for identity or fulfillment. But unlike the case in similar contemporary sf stories, the future they live in is not there merely so that their creator could publish the story as sf; everything in their world is there because Varley shrewdly *conceived* it (as the best sf writers

have always conceived their future worlds) as if no one had ever done it before. His characters, then, are logically products of their environments, with problems indigenous to their environments, yet with the same basic problems that have haunted humanity since civilization began.

Virtually all of Varley's protagonists suffer from alienation—a product of their civilization, which is an extrapolation of ours for better and for worse. They are alienated from society or from themselves, and it is Varley's view that the only remedy is a mutually satisfying relationship. A man cannot solve his problems in a vacuum, he needs another, or others. He has to have something to live for that is greater than himself. It may be art, it may be society, it may be, as it so often is in these stories, a personal relationship; but a man cannot function successfully alone and self-loving. He has to extend himself into the world somehow, to belong to something that is an extension of himself. Few are born with this ability. It has to be learned. For Varley, the best means of learning it is a healthy sexual-social relationship with the opposite sex.

He is a Utopian feminist, with a highly romantic view of the possibilities of sexual equality. His enemy is capitalist individualism, in which every man is set apart, the captain of his own private enterprise, which is the glorification of himself socially, sexually, and economically. Such an individual is adverse to any sharing of his capital self. He regards women, like everything else, as acquisitions.

This tradition has led to a hostile competition between the sexes, alienating one from another, and obscuring their personal identities as they strive to live-up to their sexual roles.

The society of Varley's "Eight Worlds" stories (in which humanity has been driven from the Earth by the whale-like Invaders) is free of sexism. It has eliminated sexist ideals by eliminating sexual roles. Organ transplants have made it possible for men to become women, and women men, as easily and as often as they like. Marriage and parenthood as we know them have been abolished. In "Retrograde Summer," a father wishing to retain his child, who according to law is to be raised by his mother, has him cloned, changes his own sex to female, and both go to live on another world where the child grows up ignorant of the fact that his "mother" is actually his father.

As comical as it sounds, the effect of the knowledge on the protagonist is to abolish any sexist illusions he may have had. As is the case with many of Varley's characters, the truth sets them free—the truth being that there is little in our lives that is concrete, and the deeper we look into ourselves, the less we are likely to find. Reality lies outside, with others.

Varley's stories deal with escape, either from an oppressive social situation or from personal illusions.

In "The Phantom of Kansas," an artist finds her male self, literally, and the two escape a society that would destroy one for the benefit of the other.

In "Air Raid," a planeload of contemporary Americans is saved from disaster by a moribund future society to populate the planets and preserve humanity. In the end, as the narrator describes the hardships they will face on the primitive alien worlds, he knows he would give anything to go with them.

In "The Black Hole Passes," two physically isolated protagonists communicate with one another by means of hologram images, with which they fall in love. Together they evolve an elaborate fantasy life. Disaster strikes. The woman rescues the man, and they return to her world to find the reality of their love.

In "Gotta Sing, Gotta Dance," a symbiote artist from the rings of Saturn comes to a world devoted to agenting the work of ring artists. He meets an earth-bound woman and teaches her something of the freedom of the selfless life of the rings where existence is a contemplation of beauty.

In "Overdrawn at the Memory Bank," a man is trapped inside a computer where he is forced to live out his life as a series of illusions. He has a female technician helping him to stay sane, and he finds a higher sense of reality of himself and the world.

By far the best story is the last. "The Persistence of Vision" presents the classic situation of a man alienated from society and himself, both of which are in a state of decay. He wanders and finds himself in a colony of deaf and blind people who have set up a communal society. Step by step, he learns their

methods of communication, and one by one, he discards his former illusions of how people are supposed to relate to one another. It is a deeply moving story.

But what does all this add up to?

Despite the subtlety of his treatments, what Varley is essentially saying is that love conquers all. If only people were nicer, kinder, more understanding to one another; if only people were allowed to realize their better natures, etc. etc. At bottom, he is as sentimental about man and the natural world as Simak. His method of dealing with evil is not to deal with it at all. He seems to think evil is strictly a matter of ideology. Change a man's ideas and you change his nature. Do you?

We should be so lucky.

Still, these are lovely stories to read. If you can afford it, I would recommend you buy the book. It may be a collectors' item one day. In any case, don't miss it.

Cutups

I enjoyed Hank Searls' *Jaws 2* and Robin Cook's *Coma* very much. I thought it would be nice to mention them, but when I tried reviewing them, I found myself becoming so critical that I began to wonder why I had ever liked them in the first place.

In the first place, I did not read them critically. I read through them as quickly as possible, for story alone, as I might watch an old movie on TV. And in this way I enjoyed them. But looking at them

critically, they raise questions in my mind.

For instance, is there such a thing as "escape" literature? I expect the majority of you to say, yes, of course; but no other label, not even "sci-fi," makes me bristle faster than that one. It was applied to my taste in literature from adolescence, and I have never ceased to resent or to deny it, at least, as it is applied to science fiction.

Now, however, I will accept one definition of it: anything may qualify as an "escape" if it is experienced uncritically, if the experience is immediate and transitory, and has no more significant content than an ice cream cone, forgotten as quickly as it is consumed.

I never forget a book that quickly, but it is safe to say I will not remember either *Jaws 2* or *Coma* for long. Still, I do not regret reading them. I read them for pleasure; I was pleased. I would recommend them to anyone, and not be at all surprised if they hated them. I feel a mixture of contempt and admiration for them that puzzles me. The contempt I believe would be that shared instinctively by most science fiction fans toward mainstream imitations of their genre; and yet I feel admiration for the intelligence and skill behind them—something I am sure most science fiction fans, and writers, overlook.

Coma, as you probably know, is about a hospital that specializes in involuntary organ grants. The ads and reviews will tell you as much. It is the story of a young medical student, who, on her first day at the hospital, sees a patient of her own age in a coma that will probably

last the rest of her life. She asks how it could have happened. She is told it happens. Once in a hundred thousand cases. But she discovers this has happened more than six times in the hospital in the last three years. She decides to find out why, hoping to discover a new disease that will make her famous.

For more than half its length, and at its best, *Coma* is a medical detective story, with a completely believable, tenacious, and fiendishly ingenious heroine outwitting the system to get at the truth, the nature of which she never suspects until she sees it with her own eyes. She is a fine character, every inch the woman Cook says she is: her reasoning, with one blatant exception, has the feel of real intelligence, which is something you rarely find in fictional characters said to be intelligent. One reason is that she *thinks* her way to a solution to one problem that poses two more problems to be solved, as opposed to the typical sf intellectual who jumps from one conclusion to another—each invariably right—with a minimum of thought in between.

Her initial plight, a woman in a man's world, a sensitive and exceptional individual trying to function successfully as a woman and a physician, is handled remarkably well, with compassion rather than fists. Cook does not make his heroine noble by contrasting her with male bigots, but suggests the complexity of feelings on both sides.

The hero shares her complexity, but is a less sympathetic character. He is seen rather callously playing

the game of hospital politics with people's lives, worrying about their well-being only to the extent that it affects his career. Yet, in context, as the heroine realizes, he is thinking like everyone else in the hospital. Cook is neither self-righteous, nor indifferent, about the failures of hospital care. He is at his best in depicting these things in human terms. Things are the way they are because people are the way they are.

By far, the best character in the novel is the hospital itself, Boston Memorial—an eerie old place that Cook paints so vividly you can smell it. Likewise, the medical procedures are done as if you were watching them on film; but Cook never loses the human touch, as he watches everything through the eyes of a physician or a patient.

His descriptive skill is evident in some of the individual scenes, especially the chase through the anatomy lab which ends in a freezer filled with cadavers. The movie retained this scene, but I doubt it could compare with Cook's ghoulish treatment of it.

The book's worst fault is its plot. Aside from the clichés, it is just too far-fetched. While, by the end of the book, I was convinced the heroine was capable of any thing, the moment she confronts the hired killer sent to silence her, her plausibility all but collapsed. I remained unconvinced by everything she did subsequently, as well as by the existence of the Jefferson Institute, Cook's chamber of horrors. The whole master scheme suddenly seemed simple-minded and conspicuous.

Worst of all was the failure of the heroine to spot the prime villain—who was obvious to me, as to anyone else, from the start; but then, the whole plot seemed obvious from the start. Such a failing is not always, or necessarily, disastrous. The emphasis in *Coma* is on the how, rather than the why, of the murders: how does the heroine learn the truth; how do they kill the patients in clear view of everyone; how do they dispose of the bodies, which are not yet dead. Knowing the solution to the mystery actually enhances it. *Coma* leaves you wondering, if not convinced, if this sort of thing is taking place somewhere.

Why, then, did I feel contempt for it? Was it merely prejudice against a mainstream intruder in sf territory? The sort that produced so many scathing reviews of Michael Crichton's *The Andromeda Strain*?

To some extent, yes. It is always annoying to see well-worn sf material given the best-seller treatment as if it were a bold, new concept; to know that the majority of people reading this, and shivering with pleasure, are ignorant of what it owes to science fiction, a field they otherwise disdain to read.

That is a superficial reason. The main thing is the recognition as one reads of the number of stock characters and situations used for cheap effects. The big city hospital, of which we are given an insider's view; the fresh-from-the-headlines theme; the beautiful-young medical student and the handsome intern; the hired killer from Chicago; the last-minute rescue in the operating room. So familiar are these ele-

ments, so devoid of imagination, that experienced genre readers cannot help but feel they are reading a prefabricated fiction designed by ad men. And would they be so wrong?

Yet—how much better is science fiction? Our plot structures are as formularized as Cook's, based on techniques thirty and forty years old. Our ability to adapt these primitive structures to modern fictional requirements, with full characterizations and contemporary themes, has not been very successful. On the average, sf characters are as two-dimensional as ever, our themes no more contemporary, or original, than Cook's, and, to be fair, considerably inferior. Cook's people, his background, his basic idea of the exploitation of organ transplant knowledge is far more sophisticated than all but what our best science fiction writers could do.

The same is true of Cook's science. Sf writers long ago gave up educating their readers. There is more science behind the average sf story than in it. Once the writer has worked out the scientific problems behind his or her story, he spends only a minimal amount of space on details. Cook gives us pages and pages of technical detail on the operation of his hospital, operating-room procedure, and anesthetology, among other things.

An sf writer would find this contemptible, on principle, but the way Cook handles it, it is fascinating. There is far more real feeling for science and for scientific reasoning in *Coma* than in most of the sf books I read. Science fiction writers are more interested in the romance

of future worlds, alien cultures, and the like, than in the romance of science.

And then, *Coma* is a problem novel. The wily engineer (read: medical student) solving a mystery that threatens the earth. Most sf writers regard this type of story as dated. And it is, for them. But not for readers.

Would sf writers profit from following the example of a novel like *Coma*?

I would say yes, only to the extent that it returned them to an appreciation of their commercial, rather than literary, origins.

But how commercial is science fiction?

The first thing that always occurs to me when I finish a book like *Coma* is: why didn't someone like Larry Niven or Fred Pohl do something like this years ago? God knows, Cook probably made more on his book than they did on a half-dozen of theirs. Yet I know instinctively that they would be constitutionally repelled by the idea.

Science fiction writers know they could make more money writing something else, if only non-fiction. They have the technical ability, and they will tell you unhesitatingly that they write for money, and yet they continue to write science fiction. Even when they strive for the best-seller list, as with a *Lucifer's Hammer*, they are incapable of forcing themselves completely into the mold and limit their mass appeal by the weight of their ideas.

What sets them apart from writers like Cook, who is primarily interested in writing a book that will sell, is that they *want* to write sci-

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ence fiction. They want to be science fiction writers. Science fiction, for them, is as much a part of their identity as it is material for a book. The world of science fiction, its literature and its people, are where and to whom they belong. Writing for them is not simply a living, but living itself.

Their ideas, then, however borrowed and blue they may be, are more personal than those of a writer like Cook. I am more respectful of them. I believe in their creators' seriousness; not only their ideas, but their artistic intent, however primitive it may be by comparison with better writers. I believe, regardless of its commercialism, science fiction has a serious intellectual and artistic intent that sets it apart, and somewhat above, its sister genres. Unlike the mystery or the western, which are purer forms, the science fiction story opens out into the world of ideas. One cannot read it as one can read other genre forms, without having to think beyond the form itself.

Therefore, I bristle at the idea of science fiction as "escape" literature.

But *Coma* does provide one example I wish more hard sf writers would emulate, and that is to take one idea and develop it fully, rather than their usual practice of using a speculative shotgun. The drama inherent in the individual has been lost in the genre's preoccupation with future worlds.

Most of what I have said about *Coma* applies to Hank Searls' *Jaws* 2. It is a prefab job, but good suspense all the same, much better than the original. What I especially

liked about it was the hero—a hero in every sense of the term, yet an anti-hero in spite of himself: a man who does nothing right. I think it was a mistake not to allow him to defeat the shark single-handed, but the ending was consistent with his character.

The central characters are appealing; the background is nicely described; the shark is suitably menacing, if implausibly ubiquitous. The screenwriters, whose treatment Searls developed, have used the kitchen-sink approach to heighten the drama, which is acceptable except for the godfather figure who almost spoils everything.

If you like suspense novels, you ought to like these two. I did.

Horrors!

A genre story is, by definition, an imitation, always of a superior model, but the word "genre," to me, also connotes genuineness, a story of a particular kind with its own unique flavor, with which its fans are familiar to the point where they can detect the subtlest defects in its ingredients.

The problem for the writer learning a genre, if I may switch metaphors, is akin to learning a foreign language. Memorization of words and forms is insufficient; the less-than-thorough scholar will forever speak haltingly in a thick accent. He must learn the language to the point where he can think in it spontaneously, the point where he can share his thoughts and feelings naturally. Only then is originality of expression possible.

The same is true of learning a form like science fiction or the hor-

ror story. They, too, have a vocabulary of their own, terms, concepts, images, story structures; and if the writer settles for merely memorizing them, if he is incapable of that final step to internalization, his stories will forever read mechanically.

Even so, like the foreigner who knows enough to get by, he may write successful stories. Such is the case with Stephen King.

I liked his novels, and I enjoyed his latest book, *Night Shift*, a collection of short stories, most of them published in *Cavalier* from 1970 to 1975, with a number of others from *Penthouse* bringing us up to 1977. Two are serious stories, two are sf, and the rest are either horror or suspense. There is little in them to interest the purist, but King is a skillful craftsman: he knows how to build suspense; and to the more open-minded, these stories will provide pleasure and excitement.

There is an excellent introduction by John D. MacDonald on what makes a writer, and an interesting, if less successful, foreword by the author expounding his theory of horror stories. The essays make it plain that King is a writer of slick commercial fiction, but no hack: He is earnest about his love for horror stories, yet he is not a genre writer.

The mechanical elements are there in every story: the well-rounded characters, the realistic backgrounds, the simplistic thematic treatments, like a collection of exercises from the Famous Writers School. I am tempted to quote one of the more mechanical paragraphs,

but that would be unfair. King is very good at this. His prose is concise and visual. His characters are effective, and his plots are, as MacDonald insists, not as easy as they look. He makes every word count, but not in the constrained Hemingway manner that makes so much genre prose self-conscious. From word one, he is building in an unhurried but deliberate manner toward his climax; and it is this technique of "building the narrative" that is his greatest strength and most obvious weakness.

Although his characters walk into their adventures as haplessly as any genre protagonists, the source of his effectiveness lies in the relationships of the characters to the locales. In "Graveyard Shift," it is a mill; in "The Mangler," a laundry; in "Trucks," a truck stop. Perfectly normal locales into which King introduces relatively normal people who encounter bizarre situations. But then what is more ominous than the drab? What is more pregnant with possibilities for horror than the normal, the everyday, the ho-hum? Consider, for instance, David Berkowitz.

King builds the relationship between his characters and their locales in such a way that the bizarre, when it happens, seems merely bizarre and not preposterous. Take, for example, "The Lawn-mower Man," not one of the better stories, in which a perfectly innocent suburban man calls a company to send someone to cut his lawn, and ends with having his throat cut. Such is the ordinariness of the suburbia King introduces us to that virtually anything is possible, if not

inevitable, and yet what makes it dramatic is that King exploits our private terror of strangers coming into our homes. Haven't you ever been scared by a huge surly plumber barging into your place with a fat bag of tools with which he proceeds to turn your placid apartment into a steel mill?

Unfortunately, the absence of any original theme or vision, as in Lovecraft or Bierce, makes these stories seem mechanical even while you are reading them. Entertainment alone is what they offer.

Fortunately, they are entertaining. Virtually every story has one high point.

My favorite is "The Ledge," a Hitchcock-type story in which a man who has fallen in love with the unhappy wife of a mobster is offered a terrifying proposition that he has little chance of surviving. The ending has a delicious irony.

"Jerusalem's Lot" apparently appears here for the first time. It seems to be a precursor to a novel. It is old-fashioned and a blatant imitation of Lovecraft, but I liked it anyway. "One for the Road" is a sequel to the novel in which a tourist gets trapped in the burned-out town and a group of locals attempts to rescue him and his family.

"Sometimes They Come Back" is about the closest King ever gets to an original idea, and he blows it at the end, but its portrait of a schoolteacher besieged by vicious young thugs he is trying to teach literature is nicely done.

In "Battleground," an assassin's victim gains revenge by sending him a box of toys that play real war games. The analogy with the U.S. in

Vietnam that might have made this story memorable is never realized, but the ending is hilarious.

"The Mangler" and "Trucks" concern machines coming to life to kill in gruesome ways. Both have chilling climaxes. King tops himself with his description of a homicidal pressing machine.

The remainder of the stories run from fair to good. There were none I disliked. If you enjoyed the novels, you should enjoy these. None is quite as good as *Salem's Lot*, but a few come close.

Department of Interesting, if Inessential, Information

September I was a date of considerable importance to me. It was the official publication date of my first book, *Speaking of Science Fiction*, a collection of thirty-one interviews with the likes of Le Guin, Lafferty, Simak, Leiber, Norton, Bester, Blish, Knight, and Anderson among others. It has an introduction by Dr. Thomas J. Roberts, Department of English, University of Connecticut, and an afterword by Samuel Mines, former editor of *Thrilling Wonder Stories*.

It is over 400 pages, has a full-color cover by Dexter Dickinson, and interior illustrations by Dave Ludwig. It is available in hardcover for \$18.75, or in quality paperback for \$6.95. Please include 50 cents to cover postage.

Copies are to be had by writing Luna Publications, 655 Orchard St., Oradell, N.J. 07649. Orders will be shipped on publication. Include a stamped, self-addressed envelope for order confirmation. ★



ALTER! *Alter!* Look at the calendar! Your column for *Galaxy* is overdue!

"Don't bother me, Geis. I'm busy writing my new novel, *Star Whores*. I—"

You made a solemn vow to J.J., Alter. He's depending on you.

"I'm right in the middle of a sex scene! A nice, juicy, ravishing sex scene!"

Nevertheless!

"Oh...all right! But I don't have a clue as to a topic. *You* think of something."

Don't have to. You remember you asked the readers to send in suggestions for topics you could discuss. Well, they did. I have here in my hand a file folder—a thick folder—full of their responses. Here. Dig in.

"(Grump!) Let's see. . . Drew Gray asks me to describe my home planet and society. . .and how I got so nasty. Huh! Drew ought to try being on the lam from the fuzz of Earth. . .an exile. . .a stranger in a disgusting land . . . in a perverted brain. . .and see how *his* disposition turns out!"

Nevertheless, Alter, you might as well answer the question.

"Okay, okay, as readers of my August, 1977 column will perhaps recall—"

Humans tend to repress pain memories, Alter.

"—I was born on the fifth planet, Gnerf, of the Zirb system, about thirty light-years from here. I was born from Larvae deposited in the abdomen on a giant Hrmp. I ate my way out, growing stronger and larger as I ate. . ."

How come you ended up here, on Earth?

"I, ahh, I committed a crime and was thrown into a warper and exiled to the Kaku-forsaken planet. I materialized in the middle of an assassination of one of your leaders and had to disincorporate instantly. It was all I could do to keep my atoms together. I was sucked thousands of miles into a tremendous mental vacuum, and when I finally organized myself, I discovered I was in Geis's brain. Imagine my horror."

You can leave anytime, Alter.

"Not until I'm good and ready, Geis."

Drew still wants to know about your home planet. And I'd like to know how big you are in your natural state.

"Gnerf society is based on a kind of telepathy and intensive cooperation. Since our 'queen bee' leader injects her eggs into hundreds of thousands of Hrmps per year, and

since the Hrmmps are notorious roamers - of - the - swamps, keeping track of her myriads of children requires telepathy and a very good memory. She has computer hookups to assist her. This hookup also allows her to broadcast powerful instructions. Very, very few of my race are ever able to disobey her."

I gather you were one such, eh, Alter?

"Yes. My crime was resistance and . . . and tinkering with a device which would have allowed me to broadcast my own orders, strictly on a small scale. But she didn't like the idea of competition. . . ."

So you were exiled. Very noble. Now tell me how big your race is, in human terms?

"We number in the multi-billions."

I mean the size of individuals.

"Let's go on to the next ques—"

Alter! How large are you?

"What does it matter? Why are you humans so hung up on size? Big this, big that . . . genitals, dams, buildings, holes, scores"

Answer!

"All right! I'm about the size of a . . . a gnat."

A gnat? I've got an intelligent fruit-fly in my head?

"That's right, you big, clumsy oaf. Are you satisfied with the truth, now? On to the next question."

A gnat! Haw! Well, well. How did you enter my brain?

"My linked atoms flowed in through your left ear. Did a bit of damage there, I'm afraid. That's why you have tinnitus—that ringing

in your ears. By the way, Earth is the dumping ground for Gnerf criminals, and a ringing or whining or fluttering sound in the ears is a sign, in humans, that a Gnerfian has landed and taken up residence in the brain."

I'm sure, Alter, that all those readers who suffer from this minor (sometimes major) affliction will be happy to have this explanation of their problem. Now let's get to some meat and potatoes. I have here a letter from David Carter, and he has some hard questions. I quote—

"No, Geis, No. I've got a headache. . . . I've got to get back to my novel."

I quote: *'I subscribed to GALAXY at least in part for your column. I also like Jerry Pournelle's science and the reviews of Spider Robinson. I read some of the fiction but not all of it. I hope that the new editor will do something about that.'*

"Yes, J.J. will visit your home and whup you until you read all the fiction in *Galaxy*."

'I am a member of an SF writers' club formed as a result of an ad in Galaxy's classified section. Most of us are unpublished but all of us read your column because you point out the screwups of pros so we can avoid them. I can point to one column where you attacked the "save the world" or "save the universe" syndrome used by some writers to build tension. In a recent column you gave your address and invited topics and questions. I have a few. . . .'

"Geis, don't do this to me!"

You asked for it, Alter. David asks for an opinion on: *'CLICHES*

IN SCIENCE FICTION. There are a lot of cliché characters and situations in SF. One is the aliens that invade Earth. Another is the dumb heroine who exists only to be rescued or to give the hero or villain someone to talk to. Probably the worst is the "1953 syndrome" where everything is just like middle America in 1953 except we have space travel or some other gadget or gimmick.'

"There's a difference sometimes between clichés and simply lazy writing. The revolutionary technology overlaid on unchanged present-day society and culture is either don't-give-a-damn writing by a pro who knows better but also knows he can get away with slop, or it's the work of some beginner or bonehead who doesn't know any better. Writing good science fiction takes *applied intelligence*! It's goddamned hard mind work. The tragedy is that there are thousands of would-be writers out there without the intelligence, the self-discipline, or both.

"And let's be honest; there are sloppy and don't-give-a-damn editors who are willing to let this kind of slop be published because they don't want to work with 'almost' writers and/or because they don't think the newsstand or bookstore buyers know good sf from bad anyway. Some of them reason: 'Put a good colorful sf cover on anything and it'll sell enough to make a fair profit.'

"But beyond that—it's virtually impossible now to create *any* character who can't be put into one or another cubbyhole as a cliché or stereotype. The thing to do is to ig-

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"Flying Saucers & The Symbie
Factor" by Ray Palmer.

"Reports From Alternate Earth
#666" by A. L. Terego.

ONE IMMORTAL MAN, Part One.
(An R-Rated sf Novel) by Richard
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Fabian.

"Alien Thoughts"—The Editor's
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SCIENCE FICTION REVIEW
P.O. Box 11408
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nore the "problem" of stereotypes and clichés. Just make your characters and situations distinctive and individual by means of a little invention and real-life detail. The heart and soul of credible sf and fantasy is realistic future detail. [He noticed a six-inch zigzag crack in his crucible, but decided to go ahead with making the invisibility potion anyway.]

'STOCK PROPS LIKE BLASTERS, HYPERDRIVE, GALACTIC EMPIRES. SF does have a lot of things that fans take for granted. Some of these we don't think about but should. Science fiction gadgets often are clever enough to make up for poor characters, dumb plots, etc.'

"Altogether true. And if you ever have to make a choice, go for the clever gadgets, the weird science. . . the (ghod help us) thousand-mile-long alien spaceship. Because that's the guts of science fiction—the different, the wondrous, the captivating. Real people amid the artifacts is a bonus. Try to give your readers that bonus, of course. But don't try to make character the focus of your sf novel. Only a very very few writers—Le Guin, Wilhelm, D.G. Compton, a few others—can do it. Most writers end up writing too much "characterization" anyway, clumsily, hamhandedly. Ideally all character and personality should be incorporated in action and dialogue and all action and dialogue should further the story. *That's* where skill, art and discipline shows."

'DEFENDING SF TO NON-FANS. How do you explain SF to

teachers and friends who don't read it? Most still think of it in terms of Buck Rogers or STAR WARS. A lot of their opinions are bigoted and ignorant.'

"Hell, most opinions on any subject are bigoted and ignorant. Tell them nicely they don't know what the hell they're talking about, and mention that George Lucas, a science fiction fan, is going to make a billion dollars on STAR WARS before he's through. Tell them Joe Haldeman got a \$100,000. advance for a novel recently, and that sf authors are sometimes selling movie rights to their books for a quarter of a million dollars. Then offer to answer questions about sf. You might also laugh in their faces. Why should the opinions of the ignorant and obtuse and stupid worry you?"

'CREATING FEMALE CHARACTERS. I hear a lot of people complain that female characters . . . in sf . . . are dumb and exist only to talk to the hero or villain and to be menaced and rescued. On the other hand I heard Princess Leia of STAR WARS described as "snippy" because she talked back to Han Solo and didn't thank Luke Skywalker for rescuing her. Any ideas on creating heroines with guts, brains and femininity?'

"There's a cultural lag of about thirty years, I think, in what is called "popular opinion" on any given subject. The sf writing conventions and formulas and clichés and stereotypes of the 30s and 40s are still buried in massmind and at the push of the "sf" button reflexively surface today, still. It comes from the minds of fifty-year-old city editors, fifty-year old TV network

and local program directors. . .

"Heroines with guts, brains and femininity? Structure your story so that the heroine *must* show those qualities! Make her important to the resolution of the story. Jesus, do I have to tell you the obvious?"

'CREATING A LOGICAL BACKGROUND. *I think that the key to good SF is a logical, coherent background. I find it hard to accept stories where they have space ships and fusion power alongside feudal nobles and swordfights. One of the good things of reading SF is visiting other worlds and societies. Far too many SF writers make it up as it comes out of the typewriter and it shows.'*

"A favorite way to write THE THREE MUSKETEERS under the sf label is to tell the reader that long after a decline into barbarism, a few ancient powerplants, designed for thousand-year automatic life, are still going. . . and that the feudal planet has backslid after the collapse of the galactic empire. . . .

"The ancient, automated, unbreakable machine is a great convenience to sf authors. Its use will die hard. In fact, hasn't Fred Pohl just won a Nebula for Gateway, which is premised on indestructible alien spaceships? But he made them logical and detailed and coherent. They stole the novel from the neurotic hero who spent half the novel being psychoanalyzed by a Freudian computer."

'BUILDING WORLDS. *Most of us have enjoyed the marvelous alien worlds of Jerry Pournelle and Poul Anderson. Both men have written articles on how they do it. We also have enjoyed the fantastic aliens of*

Hal Clement and Larry Niven. They also have written about how they do it. I would like to know a lot more. Not long ago Pournelle and Niven wrote an article called "Building the Mote in God's Eye." On page 99 of the Jan. 76 Galaxy they said, "Most hard science fiction writers follow standard rules for building worlds. We have formulae and tables for getting the orbits right, selecting suns of the proper brightness, determining temperatures and climates, building a plausible ecology." I would like to get my hands on that data, and so would others. Think Alter could mug Pournelle and get it?"

"I'm sure that Jerry and Larry are considering publishing their data and etc. if they think it worthwhile. On the other hand, a hard-science fiction writer will be already interested in that sort of thing and will know where to find that information in books . . . will probably have a small private science library of his own.

"I sniff a desire on your part to have somebody else do a lot of the work for you, David. If you are not all that interested in science—in hard science fiction—there are a host of other less scientifically rigorous varieties of sf that can be written."

"Very good, Alter. Care to comment on another letter?"

"No! I've had it for this time. Let me get back to my sex scene."

Okay, go along with you. Write.

"Yes . . . let's see now . . . 'Her turgid tentacles trailed tenderly over his . . . ' 'She slipped a stiffened tendril . . . ' 'The alien woman's plump pseudopod. . . . ' Damn you, Geis! I'm out of the mood!" ★



DIRECTIONS

Dear Mr. Pierce:

A wise man once told me that a writer should never respond to book reviewers. Some reviewers, he said, will then attack you personally, hoping to evoke further response, or (worse) will give you undeserved praise, fishing for a mash note.

Good advice, and I've managed to follow it pretty well. In fact, I could still keep my silence in the face of your Mr. Walker's ill-informed and snide review of *Study War No More* in your May number. But in the same column he says vile things about two men who are friends of mine, who are better writers than I am—and better than Walker will ever be, by the evidence at hand—and who, I suspect, are more vulnerable to Walker's brand of genteel slander than I am.

I didn't notice that Walker had reviewed *Study War No More*, though I do subscribe to *Galaxy*. His previous reviews have been so asinine that I've stopped reading that part of the magazine—even though I have three books currently making the rounds of the review columns.

Harlan Ellison sent me a copy.

Walker's problem seems, to me, to

be that he does *people* reviews, not book reviews. This basic confusion comes out in his very first paragraph, as he loftily characterizes Gordon R. Dickson as "a writer for whom I had previously had no respect for [sic] whatever." He goes on to give *The Far Call* well-deserved praise. But I do have to wonder which of Dickson's works he had previously read, to treat him with such (albeit ungrammatical) contempt. "Call Him Lord"? *Soldier, Ask Not?* "Black Charlie"? Anything?

About Ellison's story. Do me a favor, Mr. Pierce: read it. Then read Walker's review. With the title deleted, could you identify the work reviewed as "Basilisk"? I couldn't, and I've read the story many times. It seems to me that what's under review is Paul Walker's rather twisted perception of what goes on in Harlan Ellison's mind. That's not his job. Even if it were his job, he botches it.

I've known Ellison for fifteen years, and I think I've been his friend for at least half that period. I know him moderately well—well enough to know that he is neither racist, nor cruel, nor shallow, nor dishonest. Walker accuses him of all of these traits, though he cavils in context, and declines to present any concrete examples from the story. What is going on here? It isn't book reviewing. It's slander.

Having read the minds of Dickson and Ellison, he goes on to read my mind and "poor" (!) von Clausewitz's, and then the collective mind of the North Vietnamese people. When a person has given ample evidence that he can't even read a book, I don't trust his ability to read minds.

Books In Print, for instance, makes good reading. If he had checked it, Walker wouldn't have called *Study War*

No More "Joe Haldeman's first anthology adventure." *Cosmic Laughter* is still in print, after five years, and well into royalties thank you.

I don't care for Walker's emasculating and trivializing my work by quoting it partially, and out of context. But that's a reviewer's privilege. I don't care for his being surprised that I am capable of "excellent" writing. But that's also etc.

One thing I did like was his one-paragraph summation of the war in Viet Nam. Entertaining.

I get my best and worst reviews from science fiction fanzines—and that fact set me thinking, Mr. Pierce. Do you pay this guy for this claptrap? The fanzines are full of writers who are capable of nongrammatical character assassination in the context of inaccurate book reports. You could have them for free, and they wouldn't even ask for their name on the masthead.

Sincerely,
Joe Haldeman

345 Grove St.
Ormond Beach, Calif., 32074

Science fiction is not written by machines, nor is it read in a vacuum. For writers and readers alike, it is a very human activity, and the science fiction critic must describe it in human terms. In my opinion, Ellison the man is far more influential, and more interesting, than Ellison the writer. If Mr. Haldeman had read my review with his own eyes, instead of Ellison's, he would have seen that I accused Ellison of none of the crimes he alleges.

As for Gordon Dickson, I was guilty of a slight exaggeration. Previous to The Far Call, I had little, rather than no, respect for him. The point I was try-

ing to make, and which I think I made vividly, was that nothing I had read by him before prepared me for the quality of his performance in the novel. I have always thought of Dickson as a good writer who wrote badly, especially in his short stories. As I understand it, he never had to work harder at a book than he had to work on this one, and the effort proves what he was capable of writing all along, but did not.

As for my "asinine" reviews, Mr. Haldeman is, of course, referring to my less-than-adulatory reviews of his own work.

—Paul Walker

Galaxy:

—Just writing to say that your May '78 issue was my first introduction to your magazine, and that I think you have a well-balanced fare. Benford's *Stars in Shroud* is so far superb (I only wish Benford's description of the Flinger was clearer). Fabian's illustrations capture well the tone of the text, making this a great collaboration. You've got your hands on a winner here! Murphy's "Eyes of the Wolf" I thought was competent, but nothing exceptional. The illustrations again helped the mood. "A Snatch in Time" by Moak was great fun, but I almost passed this one by on account of the illustrator. Amy Harlib captured none of the humor of this story in her illustrations, and I came to this one expecting something quite different than what I got. Sorry, Amy, but I'm sure Mr. Moak would agree that there's too great a disparity between the pictures and the text.

I'm afraid I was downright disillusioned by your Showcase illustration by Poyser. It showed a lack of good taste, and in the future I think you

should forward such stuff to *Heavy Metal* or something, but it seems to have no place in *Galaxy*. Neither does a stupid short like Schweitzer's "Boy Meets Girl." These were surrounded by some really excellent writing—don't let them creep in. I'd rather see fewer pages than mere fillers.

All in all, I can only say "Good job!" You know where the bugs are—get 'em out and keep up your high standards. We need to insist on the best.

B. Klimowski

17 Church Street #3
Glassboro, New Jersey 08028

Dear Mr. Pierce:

After enjoying the first three stories in the April 1978 issue, I decided to pause and write to find out if you were pressed for space, and that's the reason you didn't include any notes on two of the stories. Where did the Cordwainer Smith story come from after all these years? Is it all in his words or not?

And has the Larionova story been published before? I find it hard to believe that a story called "The Defector" and containing an obvious analogy to the iron curtain and the puppets behind it could ever have been published in Russia!

The third story "The Devil and All Her Works" was a novice writer's attempt to use the subject of Fate with some emphasis on irony, I presume. Nice start and interesting.

Roger C. Lewis

Box 68
Owatonna, Mn 55060

"The Defector" was published in Russia, during a period of liberalization that ended shortly after the invasion of

Czechoslovakia. I haven't heard of anything new from Larionova since then, and there have been disturbing reports of other sf writers being harassed by the police, having manuscripts siezed, etc. . . . The Cordwainer Smith story I commented on last month.

—j.j.p.

Dear J. J.:

This is in response to Jay Kay's review of *Close Encounters* in your May issue.

Some general observations:

(1) *Star Wars* had special effects that were functional: they were used to get characters from one place to another in the plot, and served admirably; I applaud them. But *Close Encounters* took on a much more difficult task: to create special effects that were simply beautiful and awe-inspiring. Their final effect, the Big Ship, succeeds as far as I can see. It does *not* resemble a giant chandelier, but a luminous City in Flight. I love it.

(2) The special effects in *Close Encounters* are not *entirely* glimpses of flashing lights. Many of those lights are shining from solid vehicles, which can be glimpsed wheeling and turning in delicate motion as they speed along. As for "realism," and failure to advance special effects past the level of *Star Wars*, Spielberg and Trumbull used new, untried techniques to create their light-machines and present them realistically against a background. And while the final bombing-run in *Star Wars* was thrilling, no devotee of SF films can really believe that the corridor on the Death Star's surface was anything but a model constructed out of plastic-model parts.

(3) As far as storytelling goes, *Star Wars* is a flop; Lucas has all the ob-

ligatory scenes of the genre, but his plot has holes you could drive an Imperial Falcon through. (Why are single-pilot fighters considered no threat?) *Close Encounters* is a simple but very well-constructed story. The alien mind-plant is the "seed" from which Spielberg develops a logical and well-motivated conclusion.

(4) *Close Encounters* is science fiction. It is the best film to treat the theme of "first contact" because it treats that contact as sought after for its own sake, rather than for some ulterior motive such as world conquest.

Spielberg may have made an artistic mistake in deciding to use the UFO phenomenon as the basis of his plot, but the UFO rage is near the fore of the public's mind, and the associated fascination with alien contact makes it a logical starting point.

Star Wars and *Close Encounters* are both excellent filmmaking, advances in the technical side of the art; both have much to offer in the genre of SF. But while *Star Wars*, in its magnificent detail, presents many of the trappings of sf, *Close Encounters* deals primarily with its thematic and intellectual basis. It deals more strictly with an SF "notion," and left me with an intellectual satisfaction of seeing the SF dream of alien contact realized. I suppose that's why I preferred *Close Encounters*.

Jeff Rovin: right on, man, but, uh, don't go overboard. Some aspects of *Close Encounters* demand critical evaluation, while Jeff is giving them outright praise. Those children in blue-alien suits should *never* have been included; but I'll credit Spielberg with guts. Once he's brought them on, he keeps the cameras close in on them, so we have to overcome our initial disbelieving laughter and accept them. (There's

more: why must that little red spaceship be *transparent*? etc.)

J.J.: Keep Fabian working for you, please! No more pencil sketches for illos; and make the new artists you're publishing produce work above the crudzine level! And please, *absolutely* no more titles inked-in by the illustrator! Half the time, they're all but illegible! Maybe you can save *Galaxy* from being the ugliest prozine around!

Richard Brand

4013 Sierra Drive
Mobile, Ala., 36609

Dear Mr. Pierce,

Jeff Rovin's view of *Close Encounters of the Third Kind* irked me. The promise of the theme—the first meeting of humans and ET's—was not lived up to by Spielberg. Any reader of your magazine could have come up with a better plot. Existing science fiction already contains innumerable tales of first encounters and their consequences—one particularly well-reasoned and entertaining was *The Mote in God's Eye* by Larry Niven and your own Jerry Pournelle (by the way, Jerry, where's the sequel?). Infinite possibilities for the silver screen. Instead, what do we get? Pretty lights chasing each other about in a mindless fashion, psychic phenomena, a protagonist whose obsession borders on insanity, a mindless governmental conspiracy, and a breathless pursuit by a bumbling army (towards the mountain). The finale shows the aliens (who were disappointingly humanoid) land in a blaze of glory. The hero, a dumb electrician, hops aboard their spacecraft (taking the place of an infinitely more qualified scientist) and zooms away. . . to heaven. The whole thing has too much of the "Second Coming"

aspect to it: greatly superior beings watching out for us, and who might, some day (if we become good enough?), take us away to "Heaven" or turn the Earth into paradise with their incredible powers. Feh. And *this* is the story that Mr. Rovin compared to Dante's *Divine Comedy*? A closer comparison would be the North Podunk Post Office next to the Taj Mahal.

Pournelle's column was the best in months, as was the artwork. I enjoyed Harlan's editorial about walk the walk; try to get more guest editorials. Heinlein and Asimov are both highly opinionated on some subjects. . . So far, you are doing a fine job as editor—keep up the good work. And see if you can convince Jerry to publish a sequel to *Mote in God's Eye* (or even *A Spaceship for the King*) as a serial in *Galaxy*.

Ted Doty

18 Sunrise Terrace
Orono, Me, 04473

CE3K is the sort of movie that's wonderful to watch, but starts to fall apart the minute you start to think about it. It has the right feel to it, despite the clichés, and maybe it will actually do some good (Everybody predicted it would touch off a huge increase in UFO "sightings," but that hasn't happened.) if we're really visited by aliens.

—j.j.p.

Dear Mr. Pierce:

Gee whiz! Why doesn't Harlan thump his chest (breast? bosom?), rend his garments, rub ashes on his forehead, wail in a loud voice and gnash his teeth a bit before going forth to bring enlightenment to the heathen?

ETHICS are simple: Harlan has, as a

professional writer/public speaker, bound himself legally, morally, and ethically to perform at Iguacon as promised to the Iguacon Committee.

Must he emote so enormously before deciding personally to satisfy his professional obligations?

BUSINESS is also simple: The Iguacon Committee should have requested a surety bond to guarantee either specific performance or reimbursement for their loss.

Certainly, future convention committees should consider this option—not only from Mr. Ellison but from other "notables," V.I.P.'S, and GoH's invited to attract fans.

Agreed, Mr. Ellison's current cause (fanaticism?) may be a worthy one, but *must* he insist on making a self-righteous, public ass of himself about it? Must I (a reader—a consumer even!) be subjected to Mr. Ellison's compulsion to make a self-righteous public ass of himself? The only "rock" or "very hard place" here seems to be Mr. Ellison's head!

—William J. Keck III

396 Maryland Ave., Apt. 1A
Staten Island, N.Y., 10305

Hope yours is hard too; Harlan will probably want to bust it!

—j.j.p.

Dear Mr. Pierce:

Thank you for Harlan Ellison's statement of ethical position in the May issue of *Galaxy*. I am glad that Harlan can now look in the mirror without flinching, having refused to ignore the ugly reality and having heightened the awareness of fans to the situation of this most urgent problem and vitally important issue. It is also good to know that

Harlan will expect a barrage of flak, which he can stand while he's in the barrel, as reactionary religious elements try to scare us away from walking the walk and into turning our heads and saying it is none of our affair.

There's just one thing I don't get. Harlan says he doesn't want us to "permit the gap between what we *say* we are, and what we *really* are, to exist [*Italics* Harlan's]." Harlan's brave statement of firm resolve in the face of implacably reactionary (that's one of Harlan's favorite words) religious elements and other anti-ERA fascist scum leaves me with one question: Who's *we*? Also, what are "*we*" *really*?

Now, I've read lots of Harlan—enough, certainly, to know that anyone who disagrees with him is *ipso facto* "reactionary." So I won't disagree with Harlan's brave statement of firm resolve, in which and by which he has risked his reputation and his life and his goldfish and just about everything to live in a tent outside Phoenix. But I *would* like to suggest that some sci-fi fans—fans who are literate enough to be uncomfortable with clichés, bromides, mindless jargon, and semi-literate politicizations—might have trouble, well, relating to Harlan's writing in a meanful way that's relevant, know what I mean?

John. R. Dunlap

824 Teresi Court #1
San Jose, Calif., 95117

Well, we have to swallow Harlan, I guess. But I'll pass up the goldfish. How about the rest of you?

—j-j.p.

Dear Mr. Pierce:

As a long-time science fiction enthusiast, a would-be professional in the

genre, and a native of Phoenix, Arizona; I feel it my duty (both SF and civic) to respond to Harlan Ellison's rather intemperate outburst concerning the Iguanacon, the State of Arizona, and the fact that our legislature has yet to ratify the Equal Rights Amendment. First, some facts:

Arizona is a very conservative state (I think it's something in the air). Whether you agree or disagree with the prevailing political climate here, you must recognize it exists. Arizona has no medicaid fraud. Reason: No medicaid. Arizona's welfare burden is at its lowest in fifteen years (in numbers of recipients). Reason: The low level of benefits compared to neighboring California. Arizona's property tax rates are the envy of many more progressive states. (In spite of the fact that 75 percent of the state is federally owned and does not pay taxes.) Reason: The aforementioned low welfare burden.

Given this conservative political climate, it is a bit silly to blame the defeat of the ERA strictly on the influence of an unnamed religious group (Mormons). The fact of the matter is that the people of Arizona are overwhelmingly opposed to the ERA. If you want an inkling of why, consider what the bureaucracy that tried to ban father-son banquets would do if they had a real live constitutional amendment to play with.

I found the tone of Mr. Ellison's remarks disturbing. Why is it that the supporters of ERA question the honesty, sincerity, patriotism, and morals of those who oppose it? Answer: they are losing and getting desperate.

Mr. Ellison suggests an economic boycott of the state during the convention. I live here, so I will not be participating. Furthermore, a more counterproductive move on his part is hard

to imagine. Science fiction fans are a negligible economic force anywhere. Such a boycott will only succeed in strengthening the opposition. All Arizonans (including recent arrivals from New York) see themselves as rugged individualists in the tradition of the Wild West and they tend to get surly and uncooperative when attacked.

Finally, the thing that most disturbed me about the editorial was the streak of fanaticism that ran through it. I couldn't help thinking as I read it that Harlan Ellison, in another time and place, might have been just as happy shoving hapless Jews into furnaces to preserve the purity of the Aryan race as in boycotting Arizona to punish it for its failure to ratify the ERA. (This last is not intended as a low blow, but merely my honest reaction to the fanaticism and lack of tolerance running through the piece). You will note that in none of the above have I commented on my own position on ERA (although it might surprise you). I feel strongly, however, that there are good people, differing honestly, on both sides of the issue and that the situation does not need any rabble rousing.

As for me, I will be attending the convention and hope to have a wonderful time. If Mr. Ellison would like to seek me out and punch me in the nose, he is free to ... uh, try.

Michael A. McCollum

1931 East Libra Drive
Tempe, AZ 85283

This won't appear until after the WorldCon, alas. If you didn't catch Harlan there, you can make the pilgrimage to Sherman Oaks and I'm sure he'll be glad to oblige you . . .

—j.j.p.

Dear Sir:

There is politics and there is Politics. And I'm afraid Dick Geis wasn't able to distinguish between the two when he criticized Harlan Ellison's actions in the *June Galaxy*.

Geis implied in his column that supporting the ERA (politics type 1) is equivalent to supporting political parties, like the Democrats of the American Nazis (Politics type 2). Nothing could be further from the case.

Certainly no WorldCon should start supporting a particular political party or political philosophy, whether liberalism, conservatism, socialism, or fascism. Like any large group of people, science fiction fans hold greatly divergent views on how to run the world, and no WorldCon should try to impose one view on them.

But the ERA is not a political view in that sense. It is a moral issue, and one that science fiction fans should take a stand on.

If there is any one theme running through science fiction, it is that xenophobia is irrational, that we are *all* comrades under the skin, and that prejudice is immoral. How can SF fans *not* support an amendment that is trying to guarantee this basic tenet for all the people in the U.S., not just men?

I support Harlan's views completely and I wish him every success at the WorldCon.

On the other hand, I completely agree with Geis's column where he denounced lazy writers. It's true—in the majority of cases, if the first paragraphs are interesting, the rest of the book will probably also be interesting. Conversely, boring, depressing, overly descriptive, and uninteresting first paragraphs tend to lead to boring, depressing, overly descriptive and uninteresting books. It's

quite a good guide.

It's simply a matter of respect for the reader. If a writer wants to be read and wants to have his or her ideas thought about, (s)he will write interestingly enough to make the reader want to read the writer's stories. And, since most readers will judge a story by its opening paragraphs (or chapters in a novel), a writer has a special obligation to make those particularly interesting.

Alayne McGregor

1438 Mars Drive
Winnipeg, Canada, R3T 1E9

P.S. I was relieved to see Geis and Alter back again in the June issue after their long absence. It just didn't seem like *Galaxy* without Alter's pseudopods slithering over the pages.

You see, we did get some pro-Harlan letters—very few, to be sure, but we're including one of them for the sake of fairness.

—j.j.p.

Dear Dr. Pournelle:

I find your unconditional support of nuclear energy as the correct answer to the energy problem very disturbing, to say the least. I can't help wondering if you haven't heard of the recent controversy over the question of whether low levels of radiation are as harmless as they are commonly believed to be. I take it upon myself to enlighten you; although the balance of this letter may be more political than scientific.

There is a scientist named Dr. Thomas Mancusa who suddenly found himself at war with the U.S. government, who is now known as a dissident scientist, who is now the target of a campaign of suppression.

In 1964, before any of this, the

government commissioned the good doctor to measure how safe nuclear power plants are for the people who work in them. This was the first study of its kind and so it was invested with special significance.

The initial findings were innocuous. But almost two years ago, Dr. Mancusa and two associates turned up alarming evidence that low levels of radiation, previously thought to be safe, can actually be quite deadly.

Zap! The government suddenly cut off the funds, shoving Mancusa into premature retirement and attempting to take possession of his study. The numbers on Mancusa's charts and graphs show people who have died after being exposed to doses of radiation the government claims are safe. If the government were to pay compensation for these deaths, it would amount to millions, perhaps billions, of dollars.

Mancusa is only one of several scientists in the same predicament; victim to adverse politics. Against the government's will, he is unable to work for more solid proof of his finding.

Hanford is a government facility on the eastern edge of Washington, known to its residents as "Plutonium City." It was built during World War II for the production of atomic bombs; the country's first nuclear weapons center. It introduced people-made radiation into the ecosystem for the first time.

The AEC saw cause for concern when it received a phone call from Dr. Samuel Milham, a researcher in the Washington state health department. Dr. Milham had been independently sifting through the death certificates of 30,000 Washington workers.

He hadn't started out looking for effects of radiation, but it turned out the Hanford people had too many cases of

cancer. 4,032 Hanford workers have died since World War II, 832 from cancer, 7% more than expected.

These 832 had received about 25% more radiation than their non-cancer counterparts; yet still well within the government's "safe" zone of 5 rems. In 10 years a worker could absorb up to 50 rems. And these 832 people received an average of only 2 rems apiece during their entire time on the job.

Dr. Milham wished to publish his discoveries in a medical journal, but the AEC expressed resistance to causing a controversy; Milham decided to wait and see what Mancusa came up with.

The ERDA didn't want Mancusa's report released. They wouldn't renew his grant for further research and hurt his chances of finding other grants. When he was fired, the reason given was, "Deficiencies in performance under the contract." There was no evi-

dence of this and a month later this statement was withdrawn.

Dr. Karl Morgan is a most respected man in the field of nuclear health; he is on Mancusa's side. He wants the real answer discovered, be it one way or the other.

Dr. Mancusa has been censored, taken to court, hounded, and harassed. Without the proper research, we may never know the real truth of low level radiation. Does Hanford apply to the other nuclear plants? Due to resistance, we may never know.

Dr. Pournelle, how can you support a source we don't know quite enough about? Despite your beliefs to the contrary, I think solar power is the answer to the energy problem. Its only problem is the initial cost.

David Zakes

27 Swansea Mews
Toronto, Ontario, Canada

THINGS TO COME

Starting next issue, GALAXY will have a new editor: Hank Stine.

Stine achieved some notoriety about ten years ago with *Season of the Witch*, a controversial science fiction novel that has since become something of a collector's item, for collectors who can find it. It will soon be reissued in an illustrated edition.

Since that time, Stine has worked largely in films and television. He has written and directed a number of educational films and "countless" TV commercials, directed TV documentaries and worked with *Star Trek* and *The F.B.I.*

His writing credits range from a novelization of *The Prisoner* and appearances in *Amazing* to work for the *Los Angeles Free Press*, *Crawdaddy* and *Debonair* (!).

Already he has plans in mind for major changes in the policy, format and overall direction of GALAXY. You'll be seeing these changes next month and in the months to come. Of course, you'll still be seeing the last two installments of *Jem* and, perhaps, some stories that were already purchased when Stine was hired; but he wants his stamp to show on the magazine from his first issue.

Watch for the new GALAXY, and get in on the excitement!

Galaxy

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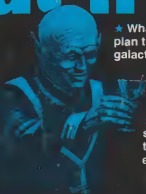
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